



Societatis Regiæ Socius.

H. B. 1704

Bathurst

Banker

SELECT REMAINS

Of the LEARNED

JOHN RUSSELL

M. A. and F. R. S.

WITH HIS

LAST

By

WILLIAM DODSLEY, D.

Published by

GEORGE SCOTT, M. A. and F. R. S.

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28

SELECTED



Jos: Banks.

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LONDON

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and J. D. G. in Downing Street.

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TO
The RIGHT HONOURABLE the
EARL of MACCLESFIELD,
President of the Royal Society.

MY LORD,

AS Mr. *Ray* was both
an eminent Philosopher,
and a Fellow of the ROYAL
SOCIETY, there is no one to

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whom

iv DEDICATION.

whom the following Sheets could, with so much Propriety, be addressed, as to your *Lordship*. I will not here, my *Lord*, attempt an Encomium on your *Lordship's* Character, for it would be thought Presumption in me to endeavour to do Justice to those excellent Qualities, which so eminently distinguish your *Lordship*. May you, my *Lord*, long live an Ornament to your *Country*, and to that *illustrious Body*, over which you so worthily preside!

I will not, my *Lord*, make any Apology for not giving a
more

DEDICATION. v

more elaborate Life of Mr. Ray; I shall only beg Leave to assure your *Lordship*, that it now appears as it was left by Dr. *Derham*, who even seemed to despair of ever putting it into its present Dress, if we may judge by what he says on this Subject in his *Preface* to the *Collection* of *Philosophical Letters*, between Mr. Ray and his *ingenious Correspondents*. Where he observes, *that notwithstanding he had made a considerable Progress in his Life, yet he was afraid he should scarce be able to accomplish what he intended, as he*
had

vi DEDICATION.

had much less Leisure at that Time, than when he undertook that Work.

The *three Letters* from Mr. Ray to Dr. Derham, are not, my Lord, in the Collection just mentioned ; I have therefore given them a Place among the *Remains*, which I hope is done with the more Propriety, as they have some Reference to Mr. Ray's Life.

The *Itineraries*, my Lord, are in Mr. Ray's own Hand-Writing, and as no one was ever more accurate in his Observations than he was, I thought

DEDICATION. vii

thought it would not be right to keep them any longer from the Public; especially as I have Letters by me from some eminent Persons to Dr. *Derham*, earnestly pressing the Publication of them. Permit me now, my *Lord*, to offer them, with the other *Remains* of Mr. *Ray*, to the Public, under your *Lordship's* Protection, and to subscribe myself,

My LORD,

Your Lordship's

most obedient

humble Servant,

GEORGE SCOTT.

DEDICATION.

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to keep them any longer from
the Public; especially as I have
learned by me from some emi-
nent Persons to Dr. Darwin
earnestly pressing the Publica-
tion of them. Permit me now
my Love to offer them, with
the other Remarks of Mr. Ray
to the Public, under our Love
first Protection, and to sub-
scribe myself,

Yours &c
Yours &c

most obedient
 humble Servant
George Scott.



THE
L I F E
O F
Mr. R A Y.



R. *John Ray* (the Subject of the following Life) was the Son of *Roger Ray*, and *Elizabeth* his Wife, of *Black Notley*, near *Braintree*, in *Essex*. He was born *November* the 29th, 1628, and was bred a Scholar at *Braintree* School, under one Mr. *Love*, the Master thereof; where he

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made such Proficiency (although at that time no good School, which Mr. *Ray* used sometimes to lament, as a great Misfortune to his younger Years,) that before he arrived at the Age of Sixteen he was sent to the *University of Cambridge*, and entered at *Katherine-Hall*, on *June* the 28th, 1644, under the Tuition of Mr. *Duckfield*.

Here he continued about a Year and three Quarters, and then removed to *Trinity-College*: But for what Reason, or by what Means, I cannot tell; only I find he was afterwards much pleased therewith; because in *Katherine-Hall* they chiefly addicted themselves to Disputations; but in *Trinity* the politer Arts and Sciences were principally minded and cultivated.

When

The LIFE of Mr. RAY. 3

When he was come to *Trinity-College*, he had the Happiness to have *Dr. Duport* for his Tutor; a Man well known for his Learning; particularly for his great Skill in *Greek*, which he gave the World good Proof of, in his *Homerical* Translations of *Job* and the other *Hagiographa*.

Under this learned Tutor, *Mr. Ray* so closely applied himself to his Studies, that what he missed of at *Braintree* School, he sufficiently attained to at *Trinity-College*; having acquired great Skill in *Greek* and *Latin*, and I have good Reason to think in *Hebrew* also. Besides which, I find, by some of his Papers written about that Time, that he was very early an excellent Orator and Naturalist: And upon the Account of his great Diligence, Learning, and Virtue, he was soon taken Notice of by the

B 2

College;

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College; and at about three Years standing was chosen *Minor Fellow* of *Trinity*, on *September* the 8th, 1649, together with his ingenious Friend *Isaac Barrow*; and as *Dr. Duport* had been Tutor to both of them, so he used to boast of them, as *Mr. Ray's* Fellow Collegian the late pious and learned *Mr. Brokesby* informed me, who saith, *That, he in Discourse with Dr. Duport, reckoning up several Gentlemen of Worth that the Doctor had been Tutor to, the Doctor said, The chief of all his Pupils were Mr. Ray and Dr. Barrow, to whom he esteemed none of the rest comparable.*

Mr. Ray having continued *Minor Fellow*, whilst *Batchelor of Arts*, was (according to the Custom of the College) chosen *Major Fellow*, when of *Master's* standing. After which, on *October* the 1st, 1651, he was chosen
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The LIFE of Mr. RAY. 5

sen the *Greek Lecturer* of the College; and on *October* the 1st, 1653, he was made *Mathematical Lecturer*; and after that, on *October* the 2d, 1655, *Humanity Reader*.

After this, when of greater standing, he was chosen into the Offices of the College, and was made *Prælector Primarius*, *October* the 1st, 1657, and *Junior Dean*, *October* the 2d, 1658; and lastly twice *College-Steward*, being sworn into that Office *December* the 26th, 1659, and *December* the 16th, 1660.

During this Time of Mr. *Ray's* being in the University, he was Tutor to many Gentlemen of great Worth. From several of which I meet with Letters of due Praise and Acknowledgements.

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Neither was he only an eminent Tutor, but as eminent a Preacher, both in his College and in the University. We have sufficient Examples of his Performances of this Kind, in the Theological Pieces he published; which were all or most of them Common-Places in his College, or Sermons preached in the University: Particularly, his *Wisdom of God in the Creation* was a College Exercise.

Although, as is just observed, he was much famed for his Preaching, he did it in a Way very different from the Fashion of those Fanatical Times. His Grace the late pious and learned Archbishop of *Canterbury*, Dr. *Tenison* (whom I am bound to mention with all due Respect and Honour) told me, *That Mr. Ray was much celebrated in his Time in Cambridge, for his preaching solid and useful Divi-*
2 *nity,*

nity, instead of that enthusiastick Stuff, which the Sermons of that Time were generally filled with; and that he well remembered the Subject of one of his Sermons was, Mundus non senescit; for which he was much applauded.

His *three Physico-Theological Discourses concerning the Chaos, Deluge, and Dissolution of the World*, I conceive, were Common-Places, or Sermons. His Discourse of the *Dissolution*, he saith, *was a Sermon he preached of old at St. Mary's in Cambridge, in a Letter to his beloved and learned Friend Dr. Tancred Robinson, of July the 24th, 1690.* The first Draught of which Sermon, as also of some of his other Discourses, I have seen, but not nearly so much enlarged as in the printed Tracts.

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Having mentioned thus much of Mr. *Ray's* Preaching, I shall take Notice of two Sermons I have met with, which he delivered at the Funerals of two of his Friends: One I imagine was at the Funeral of Dr. *Arrowsmith*, Master of his College, on *Romans* xii. 12. *Patient in Tribulation.* Which Words (he saith) he made Choice of, by Reason the Life of that reverend and learned Person, especially the last Scene of it, was eminently remarkable for the Practice and Exercise of the Grace of Patience; occasioned, I find, by a valetudinarian State of Body. But as for the Particulars which Mr. *Ray* recounts of his Life, his Education at *Newcastle upon Tyne*, his Admission into *St. John's College*, and being called thence to be Fellow of *Katherine-Hall*, then Preacher at *King's-Lynn*, after that *Regius Professor*, Vice-Chan-

Chancellor of Cambridge, and lastly Master of Trinity-College, his wife and good Behaviour in all those Places and Trusts, his Meekness, Peacefulness, Industry, and Learning, &c. I say, as for such Particulars, mentioned in Mr. Ray's Sermon, I shall pass them by as foreign to my Purpose.

The other Sermon was at the Funeral of his most intimate and dear Colleague, Mr. *John Nid*, on Psal. xxxix. 5. *Verily, every Man at his best State is altogether Vanity.* How great the Friendship was between these two, may be seen in Mr. Ray's Preface to his *Catal. Plant. circa Cantabr.* where he calls him, *amicissimus & individuus comes*; and applauds him (as he doth more largely in his Funeral Sermon) for his admirable Sweetness, and candid Temper
of

of Mind, his exact Probity, and Innocence of Life and Manners, his singular Modesty, and his excellent Learning; particularly his great and exact Skill in the Universal History of Nature, and the Works of God: Or, in few Words, as I find it mentioned in Mr. *Ray's* Sermon, *J. N. operum Dei Admirator, Probitatis studiosus*: Which, as it was exactly agreeable to Mr. *Nid's* Practice, so seems to have been a Motto Mr. *Nid* had pitched upon, it being written by himself in one of his Books. From this Character of Mr. *Nid*, it is easy to judge what the Cause was of that great Intimacy and Friendship that was between Mr. *Ray* and him, *viz.* The Agreement of their Genius and Studies, and the exact Conformity of their Humours and Manners.

During

During this Intimacy with Mr. *Nid*, Mr. *Ray* wrote his *Catalogue of Cambridge Plants*, which he saith Mr. *Nid* had a great Hand in, and lived to see almost perfected. Which Piece was published in 1660, and was of singular Use, in promoting the Study of Botany; a Branch of Learning much neglected at that Time, not only in *Cambridge*, but in most other Parts of the Kingdom. But after this Book was published (as Mr. *Ray* himself told me, than whom no Man ever spoke with greater Modesty of himself, or his Performances) *many were prompted to those Studies, and to mind the Plants they met with in their Walks in the Fields.*

This Book meeting with a kind Reception among the Learned and Curious, encouraged Mr. *Ray* the farther to proceed in these Studies and
Observa-

Observations. And not content with what he met with about *Cambridge*, he extended his Pursuits throughout the greatest Part of *England* and *Wales*, and Part of *Scotland*. In which he had commonly the Company of several curious Gentlemen, particularly Mr. *Willughby*, his Pupil Mr. *Skippon* (afterwards Sir *Philip*) and Mr. *Peter Courthope*.

Of these Journeys he left Accounts behind him; a great Part of which are here published.

The First of these Journeys was from *August* the 9th to *September* the 18th, in 1658. Which he took by himself alone through *Northamptonshire*, *Warwickshire*, *Leicestershire*, *Derbyshire*, *Lancashire*, *Cheshire*, *Flintshire*, *Denbighshire*, *Caernarvonshire*, *Anglesey*, *Merionethshire*,
Shrop-

Shropshire, Worcestershire, and Gloucestershire.

After this Journey, having finished his *Cambridge Catalogue*, and published it, as I said, in 1660, and peaceable Times coming on, by the *Restoration* of the *King* and *Royal Family*, Mr. Ray began to think of entering into Holy Orders; and at the latter End of the Year was ordained both Deacon and Priest by the learned Bishop *Sanderson*. One or both which Orders, his Lordship, then Bishop of *Lincoln*, conferred upon Mr. Ray, in his Chapel in *Barbican* in *London*, on the 23d of *December* 1660.

But now, if it should be asked, How it came to pass that Mr. Ray, who was not in Orders till 1660, was admitted to preach (as I have
said

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said he did) in the College Chapel, and at St. *Mary's*, before the *University*? I briefly Answer, in the before mentioned Mr. *Brokesby's* Words, *That Preaching and Common-placing were then commonly performed by Persons not ordained.*

After his Ordination, Mr. *Ray* continued to pursue his Inquiries after Plants, and other Curiosities; and therefore took another Journey (accompanied by Mr. *Willughby*, and some other Gentlemen) thro' *Huntingdonshire*, *Northamptonshire*, *Lincolnshire*, *Yorkshire*, the *Bishoprick of Durham*, *Northumberland*, and so into *Scotland*, as far as *Glasgow* and *Sterling*, and thence back again thro' *Cumberland* and *Westmorland*. They set out on *July* the 26th, 1661, from *Cambridge*, and finished their Journey the 30th of *August*.

The

The Year after this, Mr. Ray (and Mr. Willughby with him) took another Journey from *Cambridge*. They set out on *May* the 8th, 1662, and passed through *Northamptonshire*, *Warwickshire*, *Staffordshire*, *Cheshire*, *Flintshire*, *Denbighshire*, *Caernarvonshire*, *Anglesey*, *Merionydshire*, *Montgomeryshire*, *Cardiganshire*, *Pembrokeshire*, *Caermardenshire*, *Glamorganshire*, *Monmouthshire*, *Gloucestershire*, *Somersetshire*, *Devonshire*, *Cornwall*, *Dorsetshire*, *Wiltshire*, and *Hampshire*; and returned in *July* following.

During all this Period, Mr. Ray continued Fellow of *Trinity-College*, till the Beginning of the (1) *Bartholomew-*

(1) Among some miscellaneous Observations of Mr. Ray's is as follows; "*September* the 18th, " 1662. The Names of such Fellows of Col-
" leges

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lomeu-Act, which, requiring a Subscription against the *Solemn League and Covenant*, occasioned Mr. Ray to resign his Fellowship, he refusing to sign that Declaration. But the Reason of his Refusal was not (as some have imagined) his having taken the *Solemn League and Covenant* (2); (for that he never did, and often declared that he ever thought it an unlawful

“leges in the University of *Cambridge*, as were
 “deprived for not subscribing according to the
 “new *Act* for *Uniformity* 1661. *St. John’s Col-*
 “lege, Mr. *Wood* and Mr. *Tuckney*. *Trinity*
 “College, Mr. *Wray*. *Emanuel College*, Mr.
 “*Illingworth*, Mr. *Hulse*, and Mr. *Brinsley*. *Pem-*
 “*broke-Hall*, Mr. *Clifford* and Mr. *Green*. *Ben-*
 “*nett College*, Mr. *Chapman*. *Jesus College*,
 “Mr. *Huffe*. *Magdalen College*, Mr. *Hill* and
 “Mr. *More*. *King’s College*, Mr. *Duncombe*.
 “Besides these, Dr. *Dillingham*, Master of *Ema-*
 “*nuel College*.”

(2) See Note (14), and Mr. Ray’s *Dying Words*, at the End of the *Philosophical Letters* between him and his learned Friends, published by Dr. *Derham*.

Oath,)

Oath,) but he said he could not declare, for those that had taken the Oath, that no Obligation lay upon them; but feared there might. And one Thing that unfortunately then happened was (as Mr. *Brokesby* informed me) *That he was at that time absent from his College, where he might have met with Satisfaction to his Scruples, and was among some zealous Nonconformists, who too much influenced him, by the Addition of new Scruples. And we may also ascribe somewhat to Prejudice of Education in unhappy Times.*

Having now left his Fellowship, and visited most Parts of his own Country, he was minded to see what Nature afforded in foreign Parts. And accordingly I find Mr. *Willughby* and him consulting, towards the latter End of this Year, about travelling

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the next Spring, and considering whom they should invite to go with them (3); and having persuaded Mr. *Skippon* (afterwards Sir *Philip*) and Mr. *Nathaniel Bacon* (two of Mr. *Ray's* Pupils), to go along with them, they all Four, next Spring, viz. on *April* the 18th, 1663, went over from *Dover* to *Calais*, and from thence through divers Parts of *Europe*; which I but barely mention, as Mr. *Ray* himself, in the Year 1673, published the Observations they made in that Tour.

Towards the latter End of their Journey, Mr. *Willughby* and Mr. *Ray* parted Company, the former passing through *Spain*, and Mr. *Ray* from *Montpelier*, through *France*, in-

(3) See the Preface to Mr. *Ray's* foreign Travels.

to *England*, where he arrived about the Beginning of *March*, 1665-6.

How he spent his Time after his Arrival in his own Country, may be seen in a Letter of his to Dr. *Lifter*, of *June* the 18th, 1667, in which he saith, *For my own Part, I cannot boast of many Discoveries made the last Year, save of mine own Errors. After I took my Leave of you at Cambridge, I divided the Remainder of the Summer between Essex and Suffex, visiting several Friends. My spare Hours I bestowed in reading over such Books of Natural Philosophy as came out since my being abroad, viz. Mr. Hook's Micrographia, Mr. Boyle's Usefulness of Natural Philosophy, Origine of Forms, Hydrostatical Paradoxes, Sydenham de Febris, the Philosophical Transactions,*
C 2 *the*

the Business about (4) great Rakes, turning over Kircher's Mundus subterraneus, &c. The most Part of the Winter I spent in reviewing, and helping to put in Order, Mr. Willughby's Collection of Birds, Fishes, Shells, Stones, and other Fossils; Seeds, dried Plants, Coins, &c.; in giving what Assistance I could to Dr. Wilkins, in framing his Tables of Plants, Quadrupeds, Birds, Fishes, &c. for the Use of the universal Character; in gathering up into a Catalogue all such Plants as I had found at any time growing wild in England, not in order to the present Publishing of them, but for my own Use; possibly one Day they may see the Light; at present the World is glutted with Dr. Merret's bungling Pinax. I resolve

(4) They are now come into general Use among the Farmers, and are called *Drag-Rakes*.

never to put out any Thing which is not as perfect as is possible for me to make it. I wish you would take a little Pains this Summer about Grasses, that so we might compare Notes; for I would fain clear and complete their History.—I intend this Summer to travel farther, either Northward or Westward, or both, in quest of Plants and Fishes.

These Tables, which Mr. Ray saith were framed for Bishop *Wilkins*, were partly drawn up by Mr. *Willughby* and Mr. *Ray*, who were the best able of any Men living for such an Undertaking: But yet, when they had done it, I find they were not well pleased with it, thinking it imperfect, and capable of great Amendments; which they afterwards gave it, in their Histories of Plants and Animals. But it is not at all to be

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wondered at, that such an Account should be defective at the Beginning, before they had fully weighed and considered so new a Subject, as that was, at that time, a Part of Learning but little studied and cultivated, that lay confused, and without any, or no better than no Method; but which those two great Men so cleared up, methodized, and advanced, that to them may be ascribed a great deal of that Perfection to which Natural History is now arrived.

Having traced our great Man's Life to the Year 1667, and 39th Year of his Age, the next Thing I meet with is his farther Prosecution of his Researches into the History of Nature, the Summer of this Year, by another Journey into the West of *England*, in Company with his most honoured and beloved Friend Mr. *Willughby*.

Willughby. They set out from Mr. *Willughby's* Seat at *Middleton-Park* in *Warwickshire*, on *June* the 25th, 1667, and travelled through the Counties of *Worcester*, *Hereford*, *Gloucester*, *Somerset*, and *Devon*, into *Cornwall*, as far as the Land's-End, where they arrived *August* the 17th; and then returned through *Hants* to *London*, on *September* the 13th following. In this Journey they described many Fowls, Fishes, and Plants, and took Notes of the Mines, the Way of smelting Metals, making Salt, and divers other Things, which I find in Mr. *Ray's* Diary of that Journey.

By this Time Mr. *Ray* had much signalized himself for his great Skill in curious Matters, and therefore was importuned to come into the *Royal Society*; and accordingly he was ad-

mitted Fellow, on *November* the 7th; and in the same Month, *viz.* *November* the 16th, being (5) solicited by Dean *Wilkins* to translate his *real Character* into *Latin*, he consented to do it: And indeed he was one of the fittest Men living to undertake it, on the Account of his being a complete Master of that Language, as well as excellent in that kind of Learning. This Work he laboured at for a good while; and, although very heavy, he accomplished it, as I find by the original Manuscript, which is now in the Library of the *Royal Society*, ready for the Press, if any *Mæcenas* should have a Mind to let it see the Light.

Having spent the latter End of this Year, and the Beginning of 1668,

(5) As appears by a Memorandum in Mr. *Ray's* own Hand-Writing.

with his Friends Mr. *Burrel* and Mr. *Courtbope*, at *Danny* in *Sussex*, and Sir *Robert Barnham*, at *Bocton* in *Kent*, (all three his Pupils at *Trinity*) and Mr. *Willughby* in *Warwickshire*; he then, in *July* following, began another Journey alone by himself (his Friend Mr. *Willughby* being then newly married) into *Yorkshire* and *Westmoreland*, where he described many Plants, Fowls, &c. and then returned in *September* to *Middleton-Hall*, where he spent most of the following Winter with his Friend Mr. *Willughby*.

In the following Spring, those two great Virtuofos entered upon those Experiments about the *Tapping of Trees*, and the *Ascent and Descent of their Sap*; which are published in the *Philosophical Transactions*, and may be met with together in Mr. *Lowthorp's*

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Lowthorp's Abridgement, Vol. II. p. 682, &c. Among Mr. Ray's Observations, I find some deserving Notice, not published with the rest, viz. That the Sap of any Tree, running down the Side of the Tree, or dropping long on one Place, will precipitate a Kind of White Coagulum, or Jelly; which may be well conceived to be the Part which, every Year, between Bark and Tree, turns to Wood, and of which the Leaves and Fruit are made. And it seems to precipitate more when the Tree is just ready to put out Leaves, and begins to cease dropping, than at its First Bleeding.

A Second Observation is, *That the Sap ascends, not only between the Bark and Tree, but by all the Pores of the Wood, (which they had demonstrated*
in

in the printed Account from another Observation) *and that this is undeniably proved, by boring, in the same Tree, Holes of several Depths, or the same Hole double the Depth. For, from an Hole, suppose of two Inches Depth, will issue near double the Quantity of what proceeds from an Hole of one Inch Depth. So from the same Hole, if it be bored on to double the Depth it had, will issue double the Liquor that at first did.*

Another Experiment was, for a farther Proof of the Sap's *Ascent* through the woody Part of the Tree. To put it out of all Doubt (saith Mr. Ray) we took away, on one Side of a Birch-tree, Bark and Wood to a considerable Depth, and bored an Hole into the Tree, where the Piece was taken away; out of which Hole it bled copiously, notwithstanding
we

we carefully prevented any other Sap coming on the Filter, but what proceeded from the Hole (6).

About this Time Mr. Ray (that he might make his Journeys as useful to the World as they had been entertaining to himself) began to draw up his Observations for the Use of the Public. And one of the First Things he set upon was his *Collection of Proverbs*; which he digested into the

(6) Another Observation I meet with in this Year, or rather the Beginning of 1669, is an Account from Mr. Jennings, the High Sheriff of *Warwickshire* that Year, viz. “That if, “among the Charcoal wherewith they melt “their Iron-Mine, there be any considerable “Quantity made of *Holly*, it will make the “Iron brittle, and have the same Effect upon “it that any Sort of *Pyrites* mixed with Pit- “coal or Sea-coal hath. But if the *Holly* be “barked before it be charred, or made into “Coal, it will have no such Effect.”

most

most convenient Method he could, for the more easy and speedy finding them on Occasion. This Book, although about this Time fitted up for the Press, and sent to *Cambridge* to be there printed, in 1669, yet was not published till the Year 1672.

In this Year 1669, Mr. *Ray* prepared also his *Catalogue of English Plants* for the Press; which was First published in the Year 1670, and afterwards in 1677. His humble Thoughts of which, and his other Books, may be seen in a *Latin Letter* of his to Dr. *Lister*, of *August* the 22d, 1670 (7).

In the same Letter he also takes Notice of his altering his Name, by

(7) See the *Philosophical Letters* above quoted, p. 71.

leaving

leaving out the *W* in the Beginning of it. This Way of writing his Name *Wray*, was what he had used all the time he was in the *University*, at least whilst he was at *Trinity*, his Name being always with a *W* in the College Register. And so in the *Philosophical Transactions*, before the Year 1670, he writes his Name *Wray*. But this being, he saith, contrary to the Way of his Forefathers writing their Names, he therefore re-assumed the Name of *Ray*. And in all Probability this he took to be the truest Way of writing it, as being derived from such Places as bear the Name of *Ray*; as the *Ray-Field*, the *Ray-House*, the *Ray-Mead*, &c. Which is appropriated to Places adjoining to navigable (but not exclusive of other) Rivers, where People *Row*, or pass along with Boats; and is derived, I conceive,

conceive, from the *Saxon* Word *repan*, *remigare*, to row, or *reatte*, *remigium*, an Oar.

In the same Letter he mentions another Thing relating to himself, which was an Offer of 200 Pounds *per Annum*, to travel with three young Noblemen into foreign Parts. This Propofal he had once a Mind to have come into, and the rather, that he might review the *Alpine* Plants: but upon more ferious Consideration, he thought fit to spare his weakly Body, and stay at Home; being *fuo modulo contentus*, or, as *Melantus* in *Homer* faith,

Αἰτίζων ἀκόλῃς, οὐκ ᾄορας, εἰδὲ λείβητας.

Odyf. 17.

For a Clofe of these two Years, 1669 and 1670, I shall take Notice of an Article which I meet with
4 among

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among Mr. Ray's Notes in these Years; viz. October the 14th, 1669. We rode to see the famous Fir-trees, some two Miles and a Half distant from Newport, in a Village called Wareton (in Shropshire) in the Land of Mr. Skrimshaw. There are of them Thirty-five in Number, very tall and strait, without any Boughs, till towards the Top. The greatest, and which seems to have been the Mother of the rest, we found, by Measure, to be Fourteen Feet and an half round the Body, and they say Fifty-six Yards high; which to me seemed not incredible. The Tenant's Name of the House, close by these Fir-trees, is Fir-child, whose Ancestors have been Tenants to it for many Generations.

The next Year, viz. in the Spring of 1671, Mr. Ray was afflicted with a feverish Disorder, which ended in the

the Yellow Jaundice: But he was soon cured of it, by an Infusion of Stone-Horse Dung with Saffron in Ale (8).

All the First Months of this Year 1671, he tried many Experiments about the Bleeding of Trees, till the warmer Spring Months invited him out to visit divers of his Friends and Acquaintance.

Returning from this Journey to *Middleton*, and having rested himself there about Eight or Nine Days, he began another Simpling Journey into the North, on *July* the 3d, 1671, taking *Thomas Willisel* (9) along with him.

(8) See Mr. Ray's Letter to Dr. *Lister*, June the 28th 1671, in the *Philosophical Letters* above quoted.

(9) A Person well skilled in *Botany*, who was employed by (and was very serviceable to) Mr.

him. They travelled through *Derbyshire, Yorkshire, Westmorland, Cumberland, and Northumberland*, as far as *Berwick*; and then back through the Bishoprick of *Durham*, again to *Middleton*.

But a Stop was soon put to these his good Designs, by Mr. *Willughby* falling very dangerously ill the very next Month, first with a violent Pain in his Head, which, by using *Dia-cordium*, fell into his Breast, and became a *Pleurisy*; which shifted to a *Fever*; and that remitting, he grew better; but returning, it carried him

Ray, in collecting (and sending him the Descriptions) of *Plants*, &c. in Journeys he took over *England* for that Purpose. See the aforesaid *Philosophical Letters*, p. 351. What Opinion Mr. *Ray* had of Mr. *Willis*'s Judgment, may be seen in a Letter of Mr. *Ray*'s to him, in the same Work, p. 358, &c.

off,

off, on *July* the 3d 1672, at *Middleton-Hall*, to the infinite and unspeakable Loss and Grief (says Mr. *Ray*) of myself, his Friends, and all good Men.

Thus was the World deprived of this great and good Man, in his very Prime; for he was taken off in the 37th Year of his Age. His Example deserves the Imitation of every Person of great Estate and Honour. For he was a Man whom God had blessed with a very plentiful Estate, and with excellent Parts, capable of making him useful to the World. And accordingly he neglected no Opportunity of being so. He did not (as the Fashion too much is) depend upon his Riches, and spend his Time in Sloth, or Sports, idle Company-keeping, and Luxury; but practising what was laudable and good, what might

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be of Service to Mankind. And among other virtuous Employments, one he much delighted in was the searching after, and describing of, *Animals* (*Birds, Beasts, Fishes, and Insects*), which Province he had taken for his Task, as Mr. *Ray* had that of *Plants*. And in these Matters he was a great Master, as he was also in *Plants, Fossils*, and, in short, the whole *History of Nature*; to which I may add that of *Coins*, and most other curious Parts of Learning. And in the Pursuit and Acquest of this Knowledge he stuck neither at any Labour or Cost. Noble Monuments of which he left behind him, in those posthumous Pieces which Mr. *Ray* afterwards published; of which I shall have Occasion to speak hereafter.

There

There being the greatest Intimacy and Friendship contracted between Mr. *Willughby* and Mr. *Ray*, from the Time of their being Fellow-Collegians at *Trinity-College*, Mr. *Willughby*, therefore, not only confided in Mr. *Ray* in his Life time; but at his Death also, leaving him one of the five Executors of his Will; Sir *Thomas Wendy*, Mr. *Barnard*, Mr. *Philip Skippon* (afterwards Sir *Philip*), and Mr. *Jessop*, being the other Four. And, as a special Mark of his Friendship and Confidence, he left Mr. *Ray* Sixty Pounds a Year during his Life, and charged him with the Care of the Education of his Sons, *Francis* and *Thomas*, the elder of which, dying before he came of Age, the younger became Lord *Middleton*. These two Gentlemen being then very young (the eldest not Four Years of Age), Mr. *Ray*, as

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a faithful Trustee, betook himself to the Instruction of them; and Mrs. *Ray* herself also (after their Marriage) was an Assistant in this Matter, she being the Person that taught Lord *Middleton* his Letters, and to read *English*.

For the Sake and Service of these two young Gentlemen, Mr. *Ray* composed his *Nomenclator Classicus*, which was first published in this very Year 1672. And the Reason why he composed this Book, when many others were extant, was because there were Multitudes of Errors in all Nomenclatures then in Use, especially in the Names of Animals and Plants. And as he was the best able of any Man living to assign the true Meaning of both the *Latin* and *Greek* Names, so it was a very useful and valuable Task he undertook; service-
able,

able, not only to School-boys, but to the Amendment of our Dictionaries and Lexicons, as may be seen in some of the best of them that have been published since that Time. In most of which, I observe, that they make Use of the Significations of Words assigned by Mr. *Willughby* and Mr. *Ray* (which scarce ever was done before by the old Grammarians); but yet sometimes they cannot forbear approving of the old Signification, which inveterate Custom hath made familiar to them.

Having this Trust reposed in him, Mr. *Ray* was forced to lay aside the Thoughts he had of another Western Simpling Journey, and indeed of all Journeys of that Kind, he thinking it his Duty to be as assistant to his dear Friend's Family as he could. For which Reason he much confined

himself to *Middleton-Hall*; and the Journeys he took were about Matters relating to his Trust.

Immediately after Mr. *Willughby's* Death, Dr. *Lister* invited Mr. *Ray* to come and live with him at *York*; but nothing could draw him from the faithful Attendance on his Trust.

Not many Months after the Death of Mr. *Willughby*, Mr. *Ray* lost another of his best Friends, Bishop *Wilkins*; whom he visited in *London*, on *November* the 18th, 1672, and found him near Death, by a total Suppression of Urine for Eight Days; and the next Morning, *November* the 19th, about Four of the Clock, that great Man died, to Mr. *Ray's* unspeakable Loss and Grief, as he expresseth it.

Mr.

Mr. *Ray* having thus lost some of his best Friends, and being in a Manner left destitute, began to have Thoughts of Marriage, having met with a young Gentlewoman (then in the Family he was in) of about Twenty Years of Age; whose Piety, Discretion, and Virtues, recommended her to him, as well as her Person. Her Name was *Margaret*, the Daughter of Mr. *John Oakeley*, of *Launton* in *Oxfordshire*, a Gentleman of a younger Branch of a Family of that Name in *Shropshire*. They were married in *Middleton Church*, on *June* the 5th 1673, by the Reverend Mr. *Antrobus*, Minister of the Parish,

Towards the latter End of this Year 1673, Mr. *Ray's Observations Typographical, Moral, &c.* came forth, and therewith his *Catalogus Stirpium in exteris Regionibus a nobis observatarum.*

tarum. For the Sake of which latter Piece, in a great Measure, it was that he published the former, because he thought the latter too small and jejune to go alone into the World.

About the same Time also was published, his *Collection of unusual, or local English Words*; which he had gathered up in his Travels thro' the Counties of *England*. And the Reason why he published them was, not barely because it was a new Subject, that might amuse the Curious, but also be of good Use to Strangers that should have Occasion to visit those Parts, or have Dealings there. And to make this Book the more acceptable to the Buyers, as well as a little more bulky, he added to the First Edition, a Catalogue of *English Birds and Fishes*, and the Way of Smelting and Refining
 2 such

such Metals and Minerals as *England* doth produce. But the Birds and Fishes were left out in the Second Edition of this Book, in the Year 1691, by reason the Catalogue was imperfect, and because Mr. *Ray* had not only published a better Account of those Animals, but also intended to draw up a methodical Synopsis of all the *English* Animals, together with the Fossils. Unto which useful Undertaking he was solicited by some of his learned Friends, particularly Dr. *Tancred Robinson*.

In the Year 1674 following, Mr. *Oldenburgh*, the Secretary of the *Royal Society* (who had for some Time intermitted the Correspondence which he before had with Mr. *Ray*), began now to renew it again, by Letters sent almost every Month. He was a very diligent Secretary, and laboured
very

very heartily to keep up the Society's Correspondence, and get all the Information he could about curious Matters, from all Persons that he knew, or heard, were able to furnish him with any. And the better to accomplish his Ends, he would send his ingenious Correspondents an Account of Matters that came to his Knowledge, as well as expect a plentiful Return from them. And such are the Letters which Mr. Ray abundantly answered; some of which Accounts Mr. Oldenburgh published in the *Philosophical Transactions*, as about St. Paul's Battoons, the Trochites of Mushrooms, Maize, the Mischiefs of some poisonous Plants, the Bleeding of Trees, and Motion of their Sap, spontaneous Generation, musk-scented Insects, the Scolopendra, the acid Juice of Pismires, the Darting of Spiders, the Anatomy of the Porpus,

Porpus, the *Air-bladder* in *Fishes*, the (10) *Macreuse*, and the *Wood-cracker*; many or most of which Particulars Mr. *Oldenburgh* inserted in his *Transactions*. But Mr. *Oldenburgh* had a farther End in his frequent Correspondence with Mr. *Ray*, which was to get him into the Company of those leading diligent Members (11), who had made an Agreement to entertain the *Society* with a *Philosophical Discourse* at their Meetings, that so the Burden might not lie on two or three, or a few Members only. Which Request Mr. *Ray* readily complied with, and accordingly sent him a Discourse concerning *Seeds*, and the *specifick Differences*

(10) See the *Philosophical Letters* before mentioned, p. 147—8.

(11) See p. 126—7. of the aforesaid *Philosophical Letters*.

of *Plants*; which Mr. *Oldenburgh*, in his Letter of *December* the 21st, 1674 (12), tells him was so well received by the President and those present, that they returned him their Thanks, and desired him to let them have more of the like Favours from him.

During this Year 1674, and Part of the next, Mr. *Ray* took a great deal of Pains to prepare Mr. *Willughby's* Observations about *Birds* for the Press.

These Observations Mr. *Willughby* had rhapsodically written in *Latin*, as he did most of his other Things; and for this Reason it was first published in that Language, in the latter End of the Year 1675. And

(12) See the *Philosophical Letters*, p. 131.

although

although Mr. *Willughby* had done a great deal, yet Mr. *Ray* was at no small Labour to finish the Book, by revising the whole, digesting it into Order, and supplying from Authors, and his own Observations, what was wanting therein, Mr. *Willughby* not having had Time to do it. For although he was a most indefatigable Man, and had done more for his short Time than could be expected, and carried his Observations to a great Degree of Perfection, yet they required more polishing than it was possible for him to give them, by reason of his being snatched away (as I have said before) at a Time of Life the most proper for the finishing that Part of the noble and useful Design, which, by Agreement between him and Mr. *Ray*, fell to his Share; which was dispatching the History of Animals. Of which Design

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sign it may not be improper here to give some Account, which I shall do, as I had it from Mr. *Ray* himself, when I waited upon him at *Black-Notley*, May the 15th, 1704; viz.

These two Gentlemen, finding the History of Nature very imperfect, had agreed between themselves, before their Travels beyond Sea, to reduce the several Tribes of Things to a Method; and to give accurate Descriptions of the several Species, from a strict View of them. And forasmuch as Mr. *Willughby*'s Genius lay chiefly to Animals, therefore he undertook the *Birds*, *Beasts*, *Fishes*, and *Insects*, as Mr. *Ray* did the *Vegetables*. And how each of these two great Men discharged his Province, the World hath seen in their Works. Which shew, that Mr. *Ray* lived

lived to bring his Part to great Perfection; and that Mr. *Willughby* carried his as far as the utmost Application and Diligence of a short Life could enable him.

And now, having mentioned the Diligence of this great Man, let me add, that it was such, and his Labours so incessant in his Studies, that he allowed himself little or no Time for those Recreations and Diversions which Men of his Estate and Degree are apt to spend too much of their Time in; but he prosecuted his Design with as great Application, as if he had been to get his Bread thereby. All which I mention, not only out of the great Respect I bear to Mr. *Willughby's* Memory, but for an Example (as has been before recommended) to Persons of great Estate and Quality, that they may be ex-

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cited to answer the Ends for which God gives them Estates, Leisure, Parts, and Gifts, or a good Genius: Which was not to exercise themselves in vain or sinful Follies, but to be employed for the Glory, and in the Service, of the Infinite Creator, and in doing good Offices in the World, particularly such as tend to the Credit and Profit of their own Families.

But to return to the *Ornithology*. After Mr. *Ray* had published it (as I said) in *Latin*, he set about translating it into *English*; which, when he had finished, he published in the Year 1678, with large Additions, together with the Figures of the *Birds*, which Mr. *Willughby's* Widow was at the Charge of engraving. And, considering how well the Engravers were paid for their Labour, it

it is great Pity they had not had some able Person in *London* to have supervised them, that they might have given better Likenesses to the *Birds* than what most of them have. But this is what Mr. *Ray* could only complain of, but not help, by reason of his being in *Warwickshire*, at a Distance from *London*, where every Thing was transacted by Letters; a Method which could never afford sufficient Directions in a Matter of that Nature.

Having given an Account of the Publication of the *Ornithology* in 1675 and 1678, let us return again to the Years 1675 and 1676; about which Time the old Lady *Willughby* (Mother of Mr. *Francis Willughby*) died, and Mr. *Willughby's* Sons being removed from under Mr. *Ray's* Tui-

tion (13), he thought it best to leave *Middleton-Hall*, and retire with his Wife to some other convenient Place; and accordingly he removed to *Sutton Cofield*, about Four Miles from *Middleton*; where he continued till *Michaelmas* 1677, and then removed into *Essex*, to *Falborne-Hall*, not far from his native Place, *Black-Notley*.

During his Abode there, his Mother, Mrs. *Elizabeth Ray*, died at *Black-Notley*. She was a very religious and good Woman, and of great Use in her Neighbourhood, particularly to her Neighbours that were lame or sick, among whom she did great

(13) How faithful he was in the Discharge of his Trust, and the great Concern he had for the Welfare of his Pupils, strongly appears from the elegant *Latin* Instructions addressed to them, inserted at the End of this Volume.

Good,

Good, especially in Chirurgical Matters. Her Death was much lamented by all Sorts of Persons in her Neighbourhood (14).

Mr. Ray having continued at *Falborne-Hall* a Year and Three Quarters, on *June* the 24th 1679 (15),
The

(14) Concerning her, I find this Note of Mr. Ray's, viz. "*March* the 15th, 1678, being *Saturday*, departed this Life, my most dear and honoured Mother *Elizabeth Ray*, of *Black-Notley*, in her House on *Dewlands*, in the Hall-Chamber, about Three of the Clock in the Afternoon, aged, as I suppose, Seventy-eight: Whose Death, for some Considerations, was a great Wound to me. Yet have I good Hope that her Soul is received to the Mercy of God, and her Sins pardoned, through the Merits and Mediation of *Jesus Christ*, in whom she trusted, and whose Servant she hath been from her Youth up, sticking constantly to her Profession, and never leaving the Church in these Times of Giddiness and Distraction."

(15) "Mr. Ray takes Notice, that, on *July* the 7th following, there fell the strangest Hail-

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he and his Family removed to *Black-Notley*, where (saith he in his Remark on that Removal) *I intend, God willing, to settle for the short Pittance of Time I have yet to live in this World.* And accordingly he made his Words good.

Being settled at *Black-Notley*, and by that means eased of the Disquietude and Interruptions in his Studies, which he had met with the Four or Five last Years, by his Removal from Place to Place, he then began to resume his wonted Labours, and particularly in *Botany*. And one of the first Things he finished

“ stones he ever saw, being of extraordinary
“ Bigness, and of irregular Figures, scarce any
“ two alike; pellucid throughout like great Pieces
“ of Ice, many of them having several long
“ Snags issuing out of the Body of them. They
“ fell in a great Tempest of Thunder and
“ Lightning.”

was

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was his *Methodus Plantarum nova*; which was published in the Year 1682.

The Reason of Mr. Ray's setting about this Work was this. He had for some Years much signalized his Skill in *Botany*, and was therefore, by some of his learned Friends, put upon writing a *General History of Plants*, particularly the Honourable Captain *Hatton*, a skilful Botanist, recommended this Work very earnestly to him. To whom, for this Reason, Mr. Ray dedicated the First Volume of his *Histor. Plantar. generalis*; which, after he had laboured at for some considerable Time, the First Volume was published in *June* 1686. And about the same Time also the Second Volume was sent to the Press, but was not finished there till the latter End of 1687.

To the compiling this History, many learned and ingenious Men gave their helping Hand; but none laboured more in it than Mr. Ray's two great Friends, Sir *Hans Sloane* and Dr. *Tancred Robinson*, who were perpetually some Way or other aiding to the Completion of the heavy Work.

Neither did Mr. *Ray* take Care only of his own Books, but he continued to be mindful of what Mr. *Willughby* left behind him, particularly of what he had done about Fishes. Which, being noble Materials, but indigested and confused, Mr. *Ray* was at no small Trouble to put them into that complete Order that was necessary for the Press: Which he had done about the Year 1684, as he saith in a Letter to Dr. *Tancred Robinson*, of February the 18th

18th 1684. Where he tells him, that he had extracted out of Mr. Willughby's *Papers*, revised, supplied, methodized, and fitted for the Press, the *Ichthyology*; and promised to send it to the Doctor. And it being accordingly soon after sent, it was by him communicated to the *Royal Society*; who thinking so good a Work worthy to be published, did, by the Help of Bishop *Fell*, get it printed at the *Theatre* in *Oxford*, the *Royal Society* bearing the Charge, and the Cuts being engraved at the Cost of divers worthy Members of that illustrious Body.

In *July* 1685 this Book was put to the Press, and in *April* following it was finished and came abroad.

This *History* of *Fishes*, as well as that of *Birds* (although the completest

pletest in their Kinds of any extant) lost a great deal of their Perfection, by the unfortunate Miscarriage of Mr. *Willughby's* and Mr. *Ray's* Papers in their Travels; who had very accurately described all the *Birds*, *Fishes*, &c. which they saw, as they passed through High and Low *Germany*, especially those in and upon the *Danube* and the *Rhine*; but lost them in their Return from thence (16).

Mr. *Ray* having now for some Years betaken himself to a retired, studious, and sedentary Way of living, especially after his coming to *Black-Notley*, began to suffer in his Health, being often vexed with a troublesome *Diarrhæa*, and, after some

(16) This Mr. *Ray* laments in p. 180, 181. of the before-mentioned *Philosophical Letters*.

time,

time, with Eruptions in his Legs, which were often very irksome to him, by their immoderate Itching, and sometimes Swelling and Inflammation (17).

By this Time Mr. *Ray's Catalogue of English Plants* was grown scarce, and was much called for. Upon which he was greatly solicited, by his ingenious Friends, to review and improve that Book for a Third Edition, which he consented to. But there arising a Difference between

(17) About the first coming of them, he tells Dr. *Tancred Robinson*, in a Letter of "April the
" 8th 1687, that he was pretty well eased of his
" Pain, and the *Pruritus* was abated, which he
" could ascribe to nothing but the Use of Holy-
" hock Leaves boiled in *May Butter*, with which
" he anointed the Eruptions the Night before;
" and wonders that such a simple Ointment should
" not only abate the outward Heat and Itching,
" but remove the inward Pain in the Muscles."

him

him and the Bookfellers, who had the Right of the Copy, concerning a Third Edition, and they, notwithstanding some ill Behaviour, fighting that Book, and Mr. Ray's Improvements, and threatening to trouble any who should dare to re-print it; this, I say, put Mr. Ray upon a better Project, which was to publish it in another and better Form, agreeable to the Method of Nature; *viz. that of a Synopsis of English Vegetables*, fit for the Pocket, and not in an Alphabetical Order, as his Catalogue was. But to satisfy the Importunity of his Friends, he, instead of his Catalogue, published his *Fasciculus Stirpium Britannicarum post editum Catalogum Plantarum, &c.* This was published in the Year 1688, and therein he promised his *Synopsis*; which he accordingly got ready before the Year was expired; but between

tween the Delays and Tricks of the Bookfeller and Printer (especially of the latter), it lay so long in the Press, that Mr. Ray's Friends in *London* had a Suspicion that they intended to have stifled the Book: But it was intirely finished at the Press in *May* 1690, and published not long after.

This *Synopsis Methodica Stirpium Britannicarum* was very acceptable among all the Botanists, and is to this Day made their Pocket Companion on all their Simpling Occasions. And although Mr. Ray had added to, and much improved, his *Catalogues*, yet was not his *Synopsis* so perfect, but to be capable of farther Improvements. In order to which, many of our Botanists sent him Catalogues of Plants he had omitted, and advertised him of such Errors as he had made. By which means, as
soon

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soon as this Edition was sold off, another was published in 1696, with divers Amendments, and an Addition of above an Hundred more Species, together with a succinct *History and Method* of the heretofore disregarded and neglected Tribes of *Mosses, Mushrooms, and Sea-plants, called Fuci.*

But to return to the Year 1690, where we left off. Mr. Ray, having thus published many Books, on Subjects which he took to be somewhat alien to his Profession (which, as I said, was Divinity), to make some amends (as he thought) and entertain the World like himself, *i. e.* like a Divine and a Naturalist both, he set about his incomparable *Demonstration of the Being and Attributes of God*, which he calls, *The Wisdom of God manifested in the Works of the Creation.*

Creation. The Rudiments of which Book were laid in some College Lectures (*called Common-places*) which he, when Fellow of *Trinity*, had read in the College Chapel. And having much refined and enlarged these Common-places, and fitted them up for a convenient Volume, he sent the Copy to his old trusty Friend Dr. *Tancred Robinson*, on *March* the 3d 1690, to be disposed of by him as he thought fit; who soon put it into the Bookseller's Hands, and Five Hundred of them were accordingly printed and published in the Year 1691.

This Book was so well received by the Public, that it soon got universal Applause, and the Impression was presently sold off, so that it came to a much greater Impression the Year following, and afterwards to other Editions

Editions in 1701, 1704, 1709, and 1714, with large Additions (18).

This Book taking so well, and corresponding best with his Profession as a Divine, encouraged him to think of publishing another Book of a like Nature; whose Foundation was also laid in *Cambridge*; and this was his *Three Physico-Theological Discourses, concerning the Chaos, Deluge, and Dissolution of the World*. The Substance of these Discourses, or Part of them at least, had been the Subject of some Sermons (as I have said) which he had preached at *St. Mary's* before the University.

This Book was finished at the Press in *December 1692*, and was also, as

(18) It may here be observed, that in the Year 1700 Mr. Ray published a Tract of practical Divinity, intituled, *A Persuasive to an Holy Life*.

the former, much bought up, so that it came to a second Edition the Year following. And this Edition being sold off, the Bookfeller was, in the Year 1703, very importunate with Mr. *Ray* to make Additions to it for another Impression: Which he was prevailed upon to do; and, having done it, he sent them to *London*, in *April* 1704. But the principal Bookfeller, being at that time in a very ill State of Health, and both he and his Partner dying not long after, the Book with its Additions were laid aside, until the Right of Mr. *Ray*'s Copies came into Mr. *Innys*'s Hands; who got me to look over this Copy (I being well acquainted with Mr. *Ray*'s Papers) and to assist in the third Edition, which came out in the Year 1713.

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As to the Additions which Mr. Ray made to this, and indeed most of his other Books, the chief Reason was, because his Hands were always full, and he uneasy till he had gone through his Task; and withal being much advanced in Years, and much afflicted with Pain and troublesome Ulcers in his Legs, he chose rather to put out his Things hastily in his Life-time, than venture them according to *Horace's* good Advice,

— *In Metii descendat judicis aures,
Et patris, & nostras; nonumque prematur in annum.
Membranis intus positis, delere licebit,
Quod non edideris: nescit vox missa reverti.*

But for his farther Reasons and Excuses for his Additions, I refer to the Prefaces of his two last mentioned Books.

Soon after these Theological Pieces were published, the *Synopsis Methodica*

dica Animalium Quadrupedum, &c. was ready for the Press, and sent to London, and given to the Printers in January 1692, and by them finished in June following, 1693. For the writing of which History the World is obliged to the often before commended Dr. *Tancred Robinson*, who, well knowing Mr. Ray's great Abilities, and how acceptable and serviceable his *Synopsis of Plants*, and his Method of *Birds* and *Fishes* had been, thought a *Synopsis Methodica* of all *Animals*, and indeed of *Fossils*, and in short of all Nature, would be of very great Use; and therefore he put him upon this Work. But a *Synopsis* of this Amplitude being too operose for one Time, and such as would make a Volume much too bulky for the Pocket, Mr. Ray therefore first set upon the *Quadrupeds* and *Serpent* Tribe: And having dispatched

that, he set about a *Synopsis of Birds and Fishes*; which having likewise dispatched, he sent it to Dr. *Tancred Robinson*, on *February* the 29th, 1693-4, who took all possible Care to have it speedily printed, which was faithfully promised; but, either by the Sloth or Carelessness of the Bookfellers, who had gotten the Copy, and had paid but a small matter for it, or for what other Reasons is uncertain, they could not be prevailed upon to print it, notwithstanding Threats, as well as Intreaties and Persuasions, were used to induce them to it. And so it lay suppressed for many Years, insomuch as the Copy was thought to have been destroyed or lost. But after Mr. *Ray's* Death, Mr. *Innys* (who had purchased those Bookfellers Stock) happening to find the Copy among a great Parcel of other Papers, put it into my Hands, and

and I soon got it into the Press, and had it published in the Beginning of the Year 1713.

In this *Synopsis*, Mr. Ray added many Species of *Birds* and *Fishes*, which were omitted in Mr. *Willughby's* Histories of them, and much reformed the Method of the *Fishes*. The Additions were chiefly the Birds of *Mexico*; and the *Birds* and *Fishes* of *India*, *Spitzberg*, *Jamaica*, and those in the *Leyden* Library; and lastly the *Whale* kind about *Scotland*. To which I presumed myself to add the Figures, and some small Account of some Birds and Fishes, which the skilful Mr. *Petiver* importuned me to insert,

When Mr. Ray had dispatched his *Synopsis Methodica Avium & Piscium*, he thought he had finished his

Labours, and began to be much pleased with the Thoughts of it: But at the same Time *Rauwolff's Travels* were thought worthy of being translated into *English*, and printed. The Occasion of which was, That *Rauwolff*, being a very judicious as well as curious Traveller, and having written his Travels in High *Dutch*, and his Book being grown very scarce, Sir *Hans Sloane*, Captain *Hatton*, and some other considerable Virtuoso, procured the Book from the *Royal Society* (few besides having it), and got Mr. *Staphorst* to translate it into *English*. But it not being thought proper to trust the Matter wholly to him, it was agreed to get Mr. *Ray* to revise and correct the Translation (19), and to add a *Cata-*

(19) See the *Philosophical Letters* above quoted p. 266, &c.

logue of such *Plants* as grow in the Places where *Rauwolff* had been. And accordingly Mr. *Ray* drew up such a Catalogue for the Purpose, viz. of *Grecian* and *Syrian Plants*, and those of *Egypt* and *Crete*. Which, with *Rauwolff's* Travels, and some other scarce and curious Tracts, were printed in 1693.

Having mentioned this Catalogue of foreign Plants, it reminds me to take Notice next of his *Sylloge Stirpium Europæarum extra Britanniam*, which he wrote about this Time. The Occasion of which was this: His *Catalogus Stirpium in exteris Regionibus*, &c. being out of Print, the Booksellers were very pressing for another Edition, with Improvements; which Mr. *Ray* was minded to gratify them in; and therefore to the Vegetables which he had himself observed,

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he added others that he had omitted in the Places through which he had travelled. But his learned Friend Dr. *Tancred Robinson*, not content herewith, persuaded him to make it more complete and useful, by taking in the Vegetables of all *Europe*, growing out of *Britain*, and of all other Parts, except *India* and *America*: By which means Travellers, or others, might know what Vegetables they might expect in all Places where they should come.

This Book was published in the Year 1694. About two Years before which *Rivinus* published his *Introduction*, and presented Mr. *Ray* with it; and therein makes Use of a different Method from Mr. *Ray's*. And this *Sylloge* being the next Thing which Mr. *Ray* published, he took Occasion in the Preface to examine
Ravinus

Ravinus his Method, and shewed the Deficiencies of it. Which *Rivinus* soon answered in *November* following, in a printed Letter to Mr. *Ray*; wherein he useth great Complaisance and Civility to Mr. *Ray* in Appearance, but could not forbear giving him now and then some angry Strokes, and too superciliously and contemptuously runs down Mr. *Ray*'s, and endeavours to establish his own Method. Which Usage Mr. *Ray* shewed some gentle Resentment of, in a Reply he made to *Rivinus* his Letter; which was printed in 1696, together with a Dissertation concerning Method, in which he examines Monsieur *Tournefort*'s, as well as *Rivinus* his Method; who, in his Elements of Botany, took frequent Occasion to carp at and run down Mr. *Ray*'s Method. But, in the Opinion of better Judges than myself, Mr. *Ray*

hath sufficiently answered all their Objections against his Method, and abundantly shewed the Imperfections and Weakness, both of Dr. *Rivinus's* Method (20), which was taken from the Number of *Petala* in a Flower, as also of Monsieur *Tournefort's*, which was taken from the Form and Make of the Flower.

But this contentious Way of Writing was by no means agreeable to Mr. *Ray's* sweet and peaceable Nature, who, as he loved all Men, so desired to be at perfect Peace and Unity with All; and his Uneasiness on this Account, I find in several of his Letters to his Friends, wherein he expresses himself in very strong Terms on this Subject.

(20) See the above-mentioned *Philosophical Letters*, p. 309.

These Contests with *Rivinus* and *Tournefort*, occasioned Mr. Ray to review and amend his own Method. And accordingly he drew it up in a more complete Form than he had done in his old *Methodus Plantarum*, which was published in 1682, or than he had made use of in his *Historia Plantarum*.

This new reformed Method he finished in the Year 1698, notwithstanding, at the same time, he was grievously vexed with a continual Diarrhæa, and very painful Ulcers in his Legs, which eat deep into the Flesh, and kept him waking whole Nights. By which means he was so disabled from going to *London*, or any where among the *Physic-Gardens* (which was absolutely necessary to the perfecting his *Methodus nova*) that he tells Dr. *Tancred Robinson*, in a Letter

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Letter of *September* the 30th 1698,
he could not so much as walk into the
neighbouring *Fields*, &c.

This Book, although finished in
1698, could not be printed without
Difficulty in Four or Five Years
after. For the *London* Booksellers
were unwilling to undertake it, so
that Mr. *Ray* was forced to consult
his learned Friend Dr. *Hotton*, the
Botanic Professor of *Leyden*, about
it; who, with all Readiness, under-
took to have it printed in *Holland*;
and was so earnest to get the Copy
over, that I find many importunate
Letters from him to Mr. *Ray* about
it. And at last having received the
Copy, he got the *Wassbergs* of *Am-
sterdam* to undertake it, who printed
1100 Copies at *Leyden* (where Dr.
Hotton lived) that he might supervise
the Press,

The

The Printers finished their Task in 1703; and the *Wassbergs* (thinking it for their Interest) had it said in the Title-page, that it was *printed at London, for Smith and Walford*, (who used to print Mr. *Ray's* Things) and desired Mr. *Ray's* Leave to say so; but he refused his Consent, it being a manifest Falshood. However, they did it without his Leave, pleading it to be their Right, and that it was customary among the Printers to say what they thought would be for their Interest in such Cases.

This Book was much approved of among the Foreigners, and Mr. *Ray's* Method was much taught by some of the most eminent Professors abroad, particularly Dr. *Hotton* himself, as he tells Mr. *Ray* in some of his Letters. As in one of *July* the 3d.
1703.

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1703. *In docendo, tuâ methodo utor, quod magno cedit emolumento rei barbariæ studiosis.* And in another of April the 18th 1704. *Magnopere laudant methodum tuam amici, ad quos miseram, omnes. Inter eos Senator Venetus D. Martinelli, inconcussam pronunciat tuam Doctrinam. LA DOCTRINE (utor ejus Verbis) DU GRAND RAIUS EST INEBRANLABLE. Orbi dudum id perspectum, nihil a te proficisci posse, quod non sit elaboratum optimè, omnibusque numeris absolutum (21).*

Mr. Ray was a Man of excellent natural Parts, and had a singular

(21) Here the MS. of the Life of Mr. Ray ends, but on a Sheet of Paper containing some farther Observations on the same Subject, I find also what follows, in Dr. Derham's own Hand-writing.

Vivacity

Vivacity in his Style, whether he wrote in *English* or *Latin*, which was equally easy to him; all which (notwithstanding his great Age, and the Debility and Infirmities of his Body) he retained, even to his dying Day; of which he gave good Proof in some of his Letters, written manifestly with a dying Hand (22).

In a Word, in his Dealings, no Man more strictly just; in his Conversation, no Man more humble, courteous, and affable: Towards God, no Man more devout; and towards the Poor and Distressed, no Man more compassionate and charitable, according to his Abilities.

(22) See the aforefaid *Philosophical Letters*, p. 373. Where we find the last Letter Mr. Ray attempted to write; but in the *Postscript*, his *Strength failing him*, he was forced to break off abruptly.

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He died at *Black-Notley* (in an House of his own building) *January* the 17th 1704-5, and was buried (according to his own Desire) in the Church of that Parish, where a small Monument is erected for him at the Charge of some of his Friends, with the following Inscription :

Eruditissimi Viri JOHANNIS RAY, A. M.

Quicquid mortale fuit,

Hoc in angusto tumulo reconditum est.

At Scripta

Non una continet Regio :

Et Fama undèquaque celeberrima

Vetat Mori.

Collegii S. S. Trinitatis Cantab. fuit olim Socius,
Necnon Societatis Regiæ apud Londinenses Sodalis,
Egregium utriusque Ornamentum.

In omni Scientiarum genere

Tam Divinarum quam Humanarum

Versatissimus.

Et sicut alter Solomon (cui forsàn Unico Secundus)

A Cedro ad Hyssopum,

Ab Animalium maximis, ad minima usque Insecta,

Exquisitam nactus est Notitiam.

Nec de Plantis solùm, quà patet Terræ facies

Accuratissimè differuit ;

Sed & intima ipsius viscera sagacissimè rimatus,

Quicquid notatu dignum in universâ Naturâ

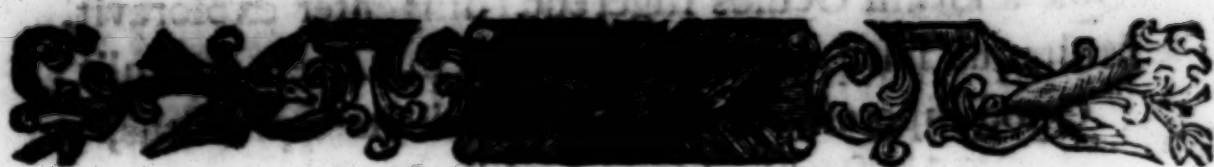
Descripsit.

Apud

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Apud exteras Gentes agens,
Quæ aliorum Oculos fugerent, diligentè exploravit,
Multaque scitu dignissima primus in Lucem protulit:
Quod superest, eâ Morum Simplicitate præditus,
Ut fuerit absque Invidia Doctus;
 Sublimis Ingenii,
Et, quod rarò accidit, demissi simul animi & modesti;
Non Sanguine & Genere insignis,
Sed quod majus
 Propria Virtute Illustris.
De Opibus Titulisque obtinendis
Parum sollicitus,
Hæc potius mereri voluit quam adipisci:
Dum sub Privato Lare, suâ Sorte contentus
 (Fortunâ lautiori dignus) consenuit.
In Rebus aliis sibi modum facilè imposuit,
In Studiis nullum.
 Quid Plura?
 Hisce omnibus
Pietatem minimè fucatam adjunxit,
 Ecclesiæ Anglicanæ
(23) (Id quod supremo halitu confirmavit)
Totus & ex Animo addictus.
Sic benè latuit, benè vixit Vir beatus,
Quem Præsens Ætas colit, Postera mirabitur.

(23) See the *Philosophical Letters* before quoted, p. 374.



THE EDITOR has been prevailed upon to add to Mr. *Derham's* Life of this excellent Man the following Prayers and Meditations, exactly copied from the Originals in Mr. *Ray's* own Hand-Writing; the two First on Occasion of the Death of particular Friends; the two last may be presumed to be the Prayers he generally used Morning and Evening.

I.

‘ *A PRAYER upon Occasion of Mr.*
 ‘ *F. W's Death.*

‘ O LORD, thou hast been pleased
 ‘ to make a sad Breach among
 ‘ us, to deprive us of our most dear
 ‘ Friend

‘ Friend and Relation, a Person that
‘ was to some of us as the very Light
• ‘ of our Eyes, the Joy of our Hearts,
‘ the greatest outward Comfort of
‘ our Lives. Give us a sanctified
‘ Use of this heavy Affliction; and
‘ when our Hearts are moved and
‘ affected with a Sense of our Loss,
‘ give us to consider our Sins, and
‘ to spend some Part of our Tears
‘ in lamenting them. Give us to
‘ consider the Vanity and Uncertainty
‘ of our Lives, and the Emptiness
‘ and Insufficiency of all Things
‘ here below, to satisfy the vast De-
‘ sires of our immortal Souls. Com-
‘ fort, O Lord, and support the
‘ Hearts of thy Servants, who have
‘ the greatest Interest in this Loss;
‘ and be thou pleased also to counsel
‘ and direct them. Give us All, upon
‘ this Occasion, to consider our lat-
‘ ter End, and to prepare for it; to

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‘ wait all the Days of our appointed
‘ Time, until our Change come;
‘ to consider that we can die but
‘ once, and after Death comes Judg-
‘ ment; that upon this Moment
‘ depends Eternity; that as the Tree
‘ falls, so it lies; as Death leaves, so
‘ shall Judgment find us; as we
‘ spend a few Days here, so it will
‘ be with us for ever hereafter; that
‘ we shall All appear before the
‘ Judgment Seat of Christ, to re-
‘ ceive, according to what we have
‘ done in the Body, whether it be
‘ Good, or whether it be Evil. Help
‘ us therefore to work, while we
‘ have the Light and the Day, be-
‘ cause the Night comes, in which
‘ no Man can work; and to pass
‘ the Time of our dwelling and so-
‘ journeying here in thy Fear. And
‘ for thy deceased Servant, give us
‘ to imitate his Meekness and Humi-
‘ lity,

‘ lity, his Temperance and Sobriety,
‘ his exemplary Chastity and Purity,
‘ his Dutifulness and Obedience, his
‘ Justice and Righteousness, his
‘ Faithfulness and Constancy, his
‘ Patience and Submission to thy
‘ Will, and all those other eminent
‘ Graces and Virtues, wherewith thou
‘ wert pleased to beautify and adorn
‘ his Soul; that so we, together with
‘ him, may, after this Life ended,
‘ be made Partakers of thine ever-
‘ lasting Kingdom and Glory in the
‘ World to come.

II.

1673.---‘ *About the latter End of*
 ‘ *November, we received the News*
 ‘ *of the Death of Sir Thomas*
 ‘ *Wendy, of Haslingfield, near*
 ‘ *Cambridge.*

‘ **M**OST holy and ever blessed
 ‘ Lord God, upon whom we
 ‘ have our constant and necessary De-
 ‘ pendance, and to whom, therefore,
 ‘ we owe all Duty, Service, and
 ‘ Obedience: We bless thy holy
 ‘ Name for all thy Mercies hitherto
 ‘ continued to Us; for our Health,
 ‘ and Peace, and Liberty; for all
 ‘ the necessary Supports and Com-
 ‘ forts of this present Life; but more
 ‘ especially for thy spiritual Mercies,
 ‘ in Things that concern a better
 ‘ Life; for our Redemption, by the
 ‘ precious

‘ precious Blood of thy Son; for thy
‘ Word and Ordinances, the Means
‘ of Grace and Salvation, the Mo-
‘ tions of thy Holy Spirit, and Assist-
‘ ances of thy Grace; and for thy
‘ Patience and Long-Suffering exer-
‘ cised towards us. O Lord, we
‘ confess that we are less than the
‘ least of thy Mercies, and have
‘ justly deserved, by reason of our
‘ Sins, to have been long ago de-
‘ prived of them all. We have vio-
‘ lated and broken thy holy and
‘ righteous Laws, omitting and neg-
‘ lecting those good Duties which
‘ thou hast commanded Us, and by
‘ committing those Evils which thou
‘ hast forbidden Us. We have lived
‘ much under the Power and Com-
‘ mand of our Lusts and Passions,
‘ of our sensual Appetites and In-
‘ clinations, and have not resisted
‘ them, nor striven against them, as

‘ we ought to have done. Our Ini-
‘ quities are gone over our Heads as
‘ a Burthen too heavy for us to bear ;
‘ but there is Mercy with Thee,
‘ therefore shalt Thou be feared ; and
‘ Thou art a God that hearest Prayers,
‘ therefore unto Thee shall all Flesh
‘ come ; and Thou hast said, if we
‘ confess our Sins, Thou art faithful
‘ and just to forgive us our Sins, and
‘ to cleanse us from all Unrighteous-
‘ ness. Have Mercy upon us, O
‘ Lord, according to thy loving
‘ Kindness ; and after the Multitude
‘ of thy tender Mercies, blot out all
‘ our Transgressions. Wash us from
‘ the Guilt of our Sins, in the pre-
‘ cious Blood of our Saviour Jesus
‘ Christ, and purge us from the Stain
‘ and Pollution of them, and sanctify
‘ us by the Inhabitation of thy Holy
‘ Spirit. Let thy Grace both instruct
‘ and enable us to deny Ungodliness
‘ and

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‘ and worldly Lufts, and to live
‘ righteouſly, ſoberly, and godlily
‘ in this preſent World. Endue us
‘ with all the Graces of thy Holy
‘ Spirit, a lively and operative Faith,
‘ an awful Fear and a Reverence of
‘ Thee, a fervent Love to Thee,
‘ and Zeal for thy Glory, with a
‘ firm Hope and Confidence in Thee.
‘ Help us to live in the conſtant
‘ Practice and Exerciſe of [thoſe
‘ Chriſtian Virtues] Sobriety and
‘ Purity, Humility and Charity; of
‘ Juſtice and Meekneſs, Patience
‘ and Contentedneſs. Help us to
‘ hate every evil Way, and to love
‘ thy Law, and delight therein.
‘ Give us to exerciſe ourſelves in all
‘ Things, ſo as to keep our Con-
‘ ſciences void of Offence, both to-
‘ wards God and Man. Aſſiſt us
‘ againſt all Temptations, more eſpe-
‘ cially thoſe to which we are moſt
‘ liable

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‘ liable [and which, heretofore, have
‘ prevailed most against us]; com-
‘ fort us in all our Adversities, sup-
‘ port us under all our Pressures,
‘ counsel and direct us in all our
‘ Doubts and Difficulties, and help
‘ us to persevere in a Way of well-
‘ doing, to our Lives End. For
‘ which End we pray Thee fit and
‘ prepare us. Give us so to live
‘ every Day, as if it were our last,
‘ that so we may always have our
‘ Loins girded about, and our Lamps
‘ burning; that when we come to
‘ die, we may have nothing to do
‘ but to die, and resign up our Souls
‘ into thy Hands, as into the Hands
‘ of a faithful Creator. With us be
‘ merciful to thy whole Church: Do
‘ good, O Lord, in thy good Plea-
‘ sure to *Sion*, build thou the Walls
‘ of *Jerusalem*; pull down and de-
‘ stroy the Kingdom of Satan, and
‘ build

‘ build up and advance the King-
‘ dom of thy Son. Be merciful to
‘ the People of this Land, and those
‘ of the neighbouring Nations. Be
‘ graciously pleased still to dwell
‘ among us, and to continue Peace,
‘ and the Gospel of Peace to us.
‘ More especially we pray for a
‘ plentiful Blessing upon thy Servant,
‘ but our Sovereign. Enrich his
‘ Royal Heart with all those Gifts
‘ and Graces that may fit and qualify
‘ him for the faithful Discharge of
‘ his high Trust and Calling. Bless
‘ him in his Person, in his Relations,
‘ in his Counsellors and Officers.
‘ Bless all that have any Places of
‘ Power and Authority under him,
‘ that they may faithfully serve him,
‘ and the Public, according to the
‘ Trust committed to them; and that
‘ they may employ their Power and
‘ Authority in the Punishment of
‘ evil

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‘ evil Doers, and in the Protection
‘ and Encouragement of those that
‘ do well. [Give us all dutiful and
‘ obedient Hearts to our Governors
‘ and Superiors.] Assist and succeed
‘ the Labours of thy faithful Mini-
‘ sters. Let thy Urim and Thum-
‘ mim be with thy Holy Ones. Give
‘ them to take heed, both to them-
‘ selves and to their Doctrine, that
‘ they may save themselves and those
‘ that hear them. Pity and com-
‘ miserate all thy afflicted Servants,
‘ comfort all those that mourn in
‘ *Sion*, bind up the Broken-hearted,
‘ visit the Sick, relieve the Oppressed,
‘ supply the Wants of the Needy,
‘ comfort the Comfortless, be a Fa-
‘ ther to the Fatherless, and let not
‘ them be ashamed who have put
‘ their Trust in Thee. Be merciful
‘ to our Friends and Relations, and
‘ such as are near and dear to us;
‘ bless

‘ blefs them in all their Concern-
‘ ments and Undertakings, and with
‘ all spiritual and temporal Blessings.
‘ [Dwell in this Family, and delight
‘ over us to do Good; be Thou the
‘ Guide of Youth, and the Staff of
‘ the Aged; season those that are
‘ young and tender among us with
‘ thy Grace, give them such a Por-
‘ tion of it, as may make them re-
‘ member Thee, their Creator, in the
‘ Days of their Youth.] Keep us,
‘ thy unworthy Servants, the remain-
‘ ing Part of this Day in thy Fear,
‘ watch over us by thy good Provi-
‘ dence, preserve us from all Evil,
‘ both of Sin and Danger; sanctify
‘ our Thoughts and Meditations,
‘ our Words and Speeches, and all
‘ our Actions and Undertakings,
‘ that they may be always pleasing
‘ and acceptable in thy Sight. Blefs
‘ us in our going out and coming in,
‘ succeed

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‘ succeed and prosper us in all our
‘ lawful Occasions and Employments,
‘ and whatever we put our Hand
‘ unto in thy Fear. Help us to pass
‘ through Things temporal, that we
‘ finally lose not the *Things eternal*.

III.

‘ *The Morning* P R A Y E R.

‘ **A**SSIST us, O Lord, in all
‘ good Undertakings, in the
‘ Services we are this Day to per-
‘ form. Help us to mind and in-
‘ tend the Business we are about, to
‘ wait upon Thee without Distrac-
‘ tion, and not to suffer our Thoughts
‘ to wander about other Objects,
‘ that we may not be of the Num-
‘ ber of those that draw near to Thee
‘ with our Lips, when our Hearts
‘ are far from Thee ; but that we
‘ may

‘ may serve Thee with Purpose of
‘ Heart, with Intention of Mind,
‘ and with true Zeal and Devotion,
‘ that so we may offer up unto Thee
‘ spiritual Sacrifice, pleasing and ac-
‘ ceptable, by Jesus Christ, our blessed
‘ Saviour and Redeemer.

IV.

‘ *An Evening* P R A Y E R.

‘ **O** LORD, our God, the Father
‘ of Mercies, and God of all
‘ Consolations, by whose gracious
‘ Providence it is that we, thy most
‘ unworthy Servants, have been pre-
‘ served this Day, we desire to ac-
‘ knowledge thy fatherly Goodness
‘ to us, and to offer up our Evening
‘ Sacrifice of Praise and Thanksgiv-
‘ ing, for all thy undeserved Mercies
‘ vouchsafed unto us; and with
‘ Shame and Sorrow do acknowledge
‘ and

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‘ and confefs our manifold Sins and
‘ Transgressions. Thou didst, at
‘ the first, create us after thine own
‘ Image, in Knowledge, Righteous-
‘ ness, and true Holiness; but we,
‘ by our Apostacy, have miserably
‘ defaced this thy Image, and are
‘ become naturally prone to Evil,
‘ and averse from Good, and we
‘ have followed the Bent and Inclination
‘ of our corrupt Appetites,
‘ gratifying and complying with our
‘ sensual and unreasonable Desires,
‘ and giving Ear to the Temptations
‘ of Satan, and the Allurements of
‘ this present evil World. [We have
‘ lived in the World, in a great
‘ measure without Thee in the World.]
‘ Great hath been the Vanity of our
‘ Thoughts, the Vanity and Sinfulness
‘ of our Words, and of all our
‘ Ways. Our own Hearts and Con-
‘ sciences must needs condemn us,
‘ when

‘ when we consider our Lives past,
‘ and call to Remembrance the Va-
‘ nities and Follies of our Youth,
‘ and the Wickedness of our riper
‘ Years, how much more then, Thou
‘ that art greater than our Hearts,
‘ and knowest all Things! O Lord,
‘ enter not into Judgment with us,
‘ deal not with us after our Deserv-
‘ ings, neither reward us according
‘ to the Evil of our Doings. Give
‘ us a due Sense of our Sins past,
‘ affect our Hearts with godly Sorrow
‘ and Contrition for them, and then
‘ be Thou merciful to us in the free
‘ Remission and Forgiveness of them.
‘ Help us for the Time to come, to
‘ walk before Thee in Newness and
‘ Holiness of Life. Deliver us from
‘ the miserable Bondage of Sin, into
‘ the glorious Liberty of the Chil-
‘ dren of God. Convince us of the
‘ Equity and Reasonableness of thy
H ‘ Ways,

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‘ Ways, and of the Beauty of Holiness,
‘ nefs, that so we may be in love
‘ with them; of the Deformity and
‘ Unreasonableness of Sin, that so
‘ we may hate and abhor it. Settle
‘ and establish us in a firm Belief of
‘ every necessary Truth; acquaint us
‘ with thy Will and our Duty; and
‘ whatsoever we ought to do, tho’
‘ never so uneasy to Flesh and Blood,
‘ give us Grace, with all Diligence,
‘ to set about the Performance of it.
‘ Help us to deny ourselves, and
‘ to take up the Cross and to follow
‘ Thee, our blessed Saviour, God
‘ manifest in the Flesh, to destroy
‘ the Works of the Devil. Assist
‘ us also, by thy Grace, manfully
‘ to fight against our spiritual Enemies,
‘ the Devil, the World, and
‘ the corrupt Flesh we carry about
‘ with us. The more weak we are,
‘ the more vigilant and watchful
‘ cause

‘ cause us to be, and the more care-
‘ ful to avoid the Occasions of, and
‘ Temptations unto, Evil. Renew
‘ thine Image in us, and make us
‘ Partakers of the Divine Nature.
‘ Make us more spiritual, more hea-
‘ venly-minded, more zealous for
‘ thy Glory, more careful in all
‘ things, to serve and please Thee,
‘ and more fearful to offend Thee.
‘ Help us to grow daily in the Know-
‘ ledge of Jesus Christ, that so our
‘ last Days may be our best Days;
‘ and when Thou shalt call for us
‘ out of this World, we may be
‘ ready to leave it, and die with a
‘ comfortable Hope and Expectation
‘ of eternal Life and Happiness.
‘ Let none of us be so hardened,
‘ through the deceitfulness of Sin,
‘ as to put off our Repentance till
‘ the Time of Sicknefs or old Age,
‘ but give us Grace to seek Thee

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‘ now, while thou mayst be found,
‘ and so call upon Thee while Thou
‘ art nigh, and to work while we
‘ have the Light, because the Night
‘ cometh in which no Man can
‘ work.”



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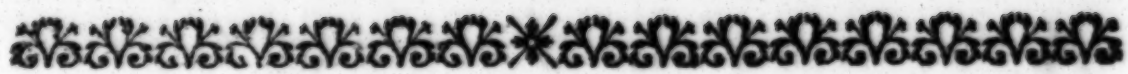
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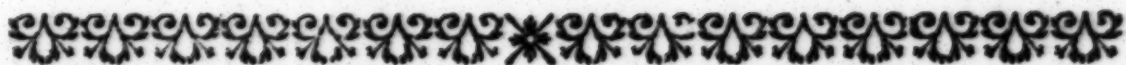
ADVERTISEMENT.

AS, from the foregoing *Life* of Mr. *Ray*, the Public might expect more of his *Itineraries* than what are here published; the Editor begs leave to observe, that those which are omitted are nothing more than some short Hints by Way of *Diary*; the Author's principal Observations being, with no small Difficulty, transcribed from his Notes, and introduced (as the Reader will find) in the Course of this Work.



Mr. *R A T*'s

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Mr. R A Y's ^(a) Itineraries.

I T I N E R A R Y I.

AUGUST the 9th 1658, I began my Journey from Cambridge, and rode that Night to *Northampton*, 31 Miles. At *Higham Ferrers* I took Notice of a great antient Stone Building, which they call the College. *Northampton* is an old Town, but indifferently

(a) It is to be observed that these *Itineraries* begin before the Restoration.

hand-

handsome, the Houses all built of Timber, notwithstanding the Plenty of Stone dug in that Country. It hath a very spacious Market-place, an old Castle demolished, and an indifferent good Wall. There, in Mr. *Brooker's* Garden, I saw divers physical Plants, and took especial Notice of *Lupinus luteus odoratus*, which was very luxuriant there: The Soil where it grew was sandy, and the Place warm. Great Plenty of Cabbage, and Roots, and Onions, and the like, are planted near this Town,

August the 10th, I travelled from *Northampton* to *Warwick*, by the Way passing through *Daventry*, 8 Miles distant; and in sight of *Holendenby-House*, which was a very stately Pile of Building, and a pleasant Situation; and then by *Shuckborough*, where lives an ancient Family of that Name.

Name. Hereabout are found Star-Stones, but I was not then advised of it. This Place may be seen at the least 20 Miles (I think) every Way; standing on an high Hill, in the midst of a Level. At *Warwick* I staid several Days, and lodged at Sir *Henry Newton's* at the Priory; and in the mean time went to St. *Mary's*, the principal Church, from the Steeple whereof I had a Prospect of the Town, which, for the Bigness of it, is good and neat, well built, and pleasantly situate, the Body of it in Form of a Cross, as most old Towns are. In the Church is a very handsome Choir, wherein they receive the Communion; a large Chapel, in which is a goodly brass Monument of one of the *Beauchamps*, who served King *Henry VI.* in the *French Wars*; also the Monument of the famous *Robert Dudley*, Earl of
of

of *Leicester*; and in a little round Place like a Chapter House, a marble Monument of (b) Sir *Fulke Grevile's*, inscribed, *Fulke Grevile, Servant to Queen Elizabeth, Counsellor to King James, and Friend to Sir Philip Sidney.* I went then to see the *Castle* belonging to my Lord *Brooke*, who then lived in it, and was in a Consumption, and is since dead. There are two noted Towers, one called *Julius Cæsar's Tower*, and another which stands higher, called *Guy's Tower*, which we ascended, and from thence had a Prospect of the Country round about, where we noted *Kinton* and *Killingworth* Caf-

(b) Sir *Fulke Grevile*, Lord *Brooke*. Mr. *Walpole*, in his ingenious Account of the *Royal and Noble Authors of England*, and their *Works*, has given a Character of this noble Peer, and has made good Use of the Particularity in his *Epitaph*.

tle,

tle, now almost quite demolished. I neglected to see the *Rib* of the *Dun Cow*, and *Guy's Sword*. I rode out a Mile or more from the Town, to see *Guy's Cliff*, an House so called, on the Bank of the River *Avon*, where then my Lord *Baltinglass* did live. There I saw a little Chapel or Chauntry, wherein was *Guy's Statue*, in the just Dimension, and a small Grot in the Rock, which they call *Guy's Cave*, in which he is reported to have shut himself up, and done Penance. Here are Butteries and Cellars cut out of the living Rock. During my Abode at the Priory, I visited Sir *Simon Archer*, who lived then in *Warwick*; at whose House I saw many Rarities, especially many Pieces of turned Work in Ivory, incredibly small and curious; also a *Letter Patent* of King *William I.* a Letter of the Pope, with a leaden

2

Seal,

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Seal, to grant Liberty to one *Archer* to build a Chapel; a plenary Indulgence to another of that Name by Pope *Boniface IX.* On one Side of the Seal, written in Capital Letters, BONIFACIUS VIII. on the other Side were two Faces looking one towards another, and above these Letters S. P. A. S. P. E. *i. e.* St. *Paulus*, St. *Petrus*. The like Seal and Inscription on the fore-mentioned *Grant*. Also a *Patent* of *Edward III.* for *free Warren* to another of the Name of *Archer*, with a Seal; on the one Side of which was the Figure of the King on Horse-back, on the other he was represented sitting on his Throne.

August the 18th, I departed from the *Priory*, and rode through *Conventry* to *Asbby-de-la-Zouch*. *Conventry* is a well built City, and has a
very

very beautiful Market-Cross, and one large Church. The Story of the Lady *Godeva*, who rode naked thro' this Town, may be had at large in *Dugdale's Description of Warwickshire*, and indeed whatever is remarkable, or worth noting in the whole County. At *Asbby* I saw the Earl of *Huntingdon's* House, now almost quite ruined; this was the principal Strength of the Garrison at *Asbby*. Thence, the next Day, I passed on through *Derby* to *Asbburn* in the *Peak*. *Derby* is a large Town, but meanly built; there have been in it five Churches, but some of them are decayed, and ready to drop down. Here I was told, by a Countryman, that there is a Pool on the Top of a Mountain, reported bottomless, near *Leek*, named *Blackmeer*. In my Journey this Day, I saw some Coal-Pits about two Miles from *Asbby*,
and

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and passed the River *Trent* at *Swarson* Bridge, where is a Causeway cross the Meadows about Half a Mile long; that deserves to be remembered, cast up with abundance of Pains and Cost at the first.

August the 19th, I got to *Ashburn*, where is a very fair Church; built Cathedral-wise.

August the 20th, I lodged at *Buxton* or *Buckstone*, and that Night entered *Pool's Hole*, which is about Half a Mile distant from thence. The Bottom of this Hole is all very uneven and slippery, and somewhat dangerous to walk in. The Water therein dropping from the Top, petrifies into a White crumbling Stone, somewhat like *Alabaster*, and wherever there is a Drop of Water distilling constantly from the Top, there
is

is under it a Pillar of Stone, which by Degrees rises higher and higher, and will at last, doubtless, come to touch the very Top. One of these Pillars, more large and remarkable than the rest, they call the *Font*, for its Likeness; for they have all of them a Cavity in the Head, containing a good Quantity of Water, into which the Drops fall. The Water *entire* petrifies not, but there be in it Atoms of Stone dissolved and swimming, as do the Parts of a Metal dissolved in a convenient Menstruum; with these, whether the Water being overcharged, doth precipitate or let go some, or whether by Adhesion or similiary Attraction, some of them leave the Water, and stick to others till at last they compound a great Mass? For as common or Rain Water, falling upon a Stone, doth continually carry away some insensible

Ramenta or Atoms of it, which probably are sustained by the Water as by a convenient Menstruum, so here the Water, being more than sated or impregnated with lapideous Atoms, falling upon a Stone, doth continually let some go, which, being of the same Nature, adhere to the Stone, and augment its Bulk. In the rude Rock, there be some Stones which imitate a Bacon-Fitch, some a Lion, &c. which they call by those Names. There is in it a Place which they call the *Queen's Pillar*, because *Mary Queen of Scots* went in so far; beyond which it is not easy to go without climbing on your Hands and Knees. Sometimes, in a rainy Winter, this Cave at the Bottom is full of Water, which gusheth out in great Plenty at the Mouth of it. At *Buxton* I saw and felt the Water in the *Hot-Well*, which is nothing near
so

so hot as the Waters at *Bath*. Here-
about are very many hot Springs, and
some cold ones near them, but not
any that I could find so near as is
reported, viz. that you might put
your Thumb into one, and your
Finger into another. I think there-
about be as many, and possibly some
as hot Springs as any at the *Bath*.
Underneath the Earth is nothing but
Limestone. Here is a Well called
St. *Anne's* of Buckstone, a warm
Spring, which they drink, and fancy
that it cures all Diseases. On the
moorish Hills, and in the Pastures
hereabout, I first observed *Alchimilla*,
Muscus clavatus, five *Lycopodium*
Erica baccifera fructu nigro, *Vicci-*
nia rubra, *Vitis Idæa thymi foliis*,
Muscus erectus abietiformis. Out of
an Hill near *Buxton*, called *Axe-*
Edge, spring Four Rivers, which
run Four contrary Ways, viz. *Dove*

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South, *Dane* West, *Gwayt* North,
and *Wye* East.

August the 22d, I rode to a Place called *Weeding Well*, where there is shewn a little Well, which, they will tell you, sometimes ebbs and flows three times in an Hour, but in these dry Summers hath quite ceased. Thence I went to *Elden-Hole*, which may be, for aught I know, for Depth, such as is reported: If you cast a Stone into it, after a while you shall hear the Noise of it striking against the Sides to and again. They tell a Story of Sir *Thomas Cavendish* endeavouring to fathom it, and of a Stone that sticks out in it on one Side about Fourscore Fathoms down; it lies open without any Fence or Rail, so that it is easy for Cattle to fall into it. Hence I went to *Mamme Torr*, which is an high Mountain

tain broken on one Side, of which the Tradition is, that the Earth continually falls down, yet is not the Hill any thing diminished, nor the Heaps of Earth below at all encreased. I got as near as I could to the broken Side, but could not hear or see any such running down of the Earth; when there is Rain, the Water running down washeth away with it much of the Hill. I was informed, that on the Top of this Mountain is an antient *Roman* Camp, encompassed with a double Trench, whereabouts are sometimes found Store of antient *Roman* Medals. Hence I went the same Day to *Castleton*, when I entered that great and famous *Specus* or *Cave*, called the *Devil's A—*; which is of a marvelous Breadth at the Mouth, and wider (they say) than any artificial Arch now to be seen: Within the Entrance

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are two or three Cottages where poor People live. I went in as far as the first Water, which is not far, which, if you pass, they say you meet with a Second, which likewise may be passed, and then you come to a Third, where the Water and the Top meet. Upon the Mountain, just above this Hole, stands an old Castle, from whence the adjoining Town took its Name. Hereabout grows Plenty of *Cochlearia rotundi folia*, as I was informed by several People living here; of which I doubt not, because I have found it in the little Rills descending from many high Hills, as *Penigent* and (c) *Ingleborough*. Hence, climbing many stony Hills,

(c) On this Hill, says Mr. Ray, grows the following Plants; to wit, *Polygonatum latifolium*, *Sedum Ericæ foliis*, (about the Beacon plentifully,) *Thalictrum minus*, *Lilium convallium*,
Allium

Hills, and passing many Unevennesses, I proceeded as far as *Dickly*, in the Way to *Manchester*, which is a large and a very neat Town. Here I took Notice of the College, and the new Library, which they had furnished with useful and choice Books. I saw the Free-School and the Church, from the Steeple of which I had a Prospect of the Town. Accompanied with Mr. *Birch*, the School-Master, I went to see the Place, where of old had been (I think) a *Roman* Fortification, which they there call the Castle; it is a Mile or more from the Town: The Area thereof is large. Near this Spot I saw a little House cut out of

Allium ursinum, also a small Yellow Mountain *Sedum*, and a Sort of *Myagrum*, *Rhodia radix*, *Sedum ericoides*, and *Sedum Alpinum luteum minus*, all three abundantly; also *Salix pumila folio rotundo Alpina*, but in no great Plenty.

the Rock, the like whereto I had before seen at *Guy's Cliff*, and since at *Bridgenorth*, *Nottingham*, and other Places.

August the 24th, I directed my Course towards *North Wales*, and that Night lay at *West Chester*. I passed through *Northwych*, where I saw the Manner of making Salt. The Brine Pit, or Salt Spring, is near to the Bank of the River, thence they pump up the Water, which is by Troughs conveyed into the Pans, where it is evaporated by boiling. The Salt, after its crystallizing, falls down to the Bottom, and they take it out by wooden Scummers, and put it in Frails, and set it in a warm Room behind the Furnace, to drain and dry. The Salt is very white; I did not enquire whether they made use of Ox's Blood, as they do who
make

make Salt of Sea Water. The City of *Chester* is large and indifferently fair. It hath one Peculiarity which no other Town hath, that I have seen in *England*: That is the Rows (as they call them) or Cloisters on each Side of all the considerable Streets in the Town, in which one may walk the Streets under Cover in the dry, in the most rainy and wet Weather. The Town is well walled about; the Cathedral built of a red sandy Stone, which suffers much by the Weather. It hath little Beauty within or without. There is likewise a *Castle* held by a small Garrison, wherein the Assizes are kept.

August the 25th; From *Chester* I rode over the Sands as far as *Flint Castle*, which stands upon the Sea, but is now almost quite fallen down; thence to *Haliwell*, where I saw and
drank

drank of the so much famed Water of *St. Winifred's Well*, which I knew not how to distinguish from common Water. It is a most copious Spring; I have not any where seen so much Water rise out of the Earth in so small a Compass; over it is an handsome Stone Building, and by it a Chapel, where lie continually a great Number of poor, lame, impotent People, more I believe to beg and receive the Alms of Strangers, that either out of Curiosity or Devotion come to visit and see the Well, than out of Hope to receive much Benefit by the Use of this Water, though the Inhabitants of this Place will tell you Stories enough, very confidently and circumstantially, of lately done miraculous Cures by the Use thereof: But I have learned that to distrust is *Nervus Sapientiæ*. Leaving *Haliwell* that Night, I reached

2

St.

St. *Asaph*, a Bishop's See, where there is a very poor Cathedral Church, covered with Shingles or Tiles, excepting one of the Isles, where also the Lead is fallen off, which yet is esteemed here a stately Fabrick.

August the 26th, I went to *Aberconwey*, a pretty little Town in *Carnarvonshire*, inclosed with an high and strong Wall. Here is a *Castle* standing on a Rock, within the Water, of great Strength, and which (as they told me) held out the last for the King. Here the Assizes were now holden. The Place is but poor, as is generally all the Country; tho' about St. *Asaph* there is a very pleasant, and (I believe) fruitful Vale.

August the 27th, I made for the Isle of *Anglesey*; and riding over the Sands, under an high Rock, called
Penman

Penman Daughan, and over another called *Penman mawr*, in a narrow, and somewhat dangerous Way, there being a very steep Precipice into the Sea on one Hand; I yet missed the Opportunity of the Sands, to go over to *Beaumaris*, and was forced to go round by *Bangor*, another Episcopal See, but a small Village, and the Cathedral a mean one. I passed the Ferry at *Portbaitbwyth* into the Isle of *Anglesey*, and lodged at *Beaumaris*, a pretty little Town, having an handsome strong Castle. The *Welch* people generally are extremely civil and well bred, very honest and courteous to Strangers.

August the 31st, I removed to *Carnarvon*, passing over the Ferry just named. *Carnarvon* is a small Town, walled about with a tall but slight Wall. The *Castle* is large,
hath

hath formerly been considerable for its Strength and Beauty, but now is quite gone to Decay: *Edward II.* was born in it.

September the 1st, I left *Carnarvon*, intending for *Snowden*, having, for that Purpose, hired a Guide to conduct me to the Top of the Hill. But it rained so hard, and the Weather proved so bad, that I was forced, within a Mile of the Town, to take Shelter in a small Cottage. After that I proceeded to the Foot of the Hill, where my Guide desponding, and being somewhat late, I was forced to dismiss him. This Night I lodged at *Bethkellert*.

September the 2d. At *Bethkellert* I hired another Guide to the Top of *Snowden*; we marched up on Foot about Four Miles. The Top of the Mountain

Mountain was covered with Clouds, so that I lost the Prospect usually taken from thence of the adjacent Country. Divers rare Plants I found on the Top and Sides of the Hill, which were then Strangers to me, *de quibus consule Catalogum.*

September the 3d, I rode from *Bethkellert* to *Bala*, in *Merionethshire*, a long and bad Way, tho' accounted but 20 Miles. The Assizes were then held there.

September the 5th, I rode to *Dolgeble*, a small Town, where I first heard of the Observations of an *Oxford* Scholar concerning that Town, since printed in *Fuller's Worthies*. It stands under an Hill called *Caderidrís*, said to be three Miles high, which I ascended, from whence I had a fair Prospect of the Country round

round about. I found no new Plants, save the *Globe Flower*, *Cypress Moss*, and another small *Club Moss* with White Seeds.

September the 6th, I travelled to *Mabentler*, and thence to the Silver Mills, where I saw and learned the whole Process of the Work of melting and refining of Silver. They have two Sorts of Ore, the one rich of *Dorrens* and *Comsomlogh*, the other poorer of *Talabont*. They mix these, Six Parts of *Dorrens* Ore with Four of *Talabont*, because *Dorrens* being rich, will not melt off the *Hearth* without such a Quantity of the *Talabont*. Then they carry it in a Barrow from the Storehouse, to each Smelter's several Bing, where it is melted with Black and White Coal (that is, Sticks cut into small Pieces, then flit and dried); but the whole of this

this I had afterwards more exactly in my Fourth Voyage.

September the 7th, I directed my Course to *Shrewsbury*, and lodged at *Llanver*, short of *Welch-Pool*; where I first heard of the Death of *Oliver L. Protector*.

September the 8th, I rode through *Welch Pool* to *Shrewsbury*. This Town is as large as *Cambridge*, fair, well-built, compact, walled almost round with a thick and strong Wall (as Walls go in *England*), yet but low. It hath a *Castle*, six Churches, a great Free-School, having four Masters; and a Brewhouse noted for its Bigness. *Shrewsbury* Cakes are much esteemed.

September the 12th, I travelled to *Kedermister*; and from thence proceeded

proceeded on to *Worcester*. This Town is large, hath a fair Cathedral, within side very handsome, but decaying apace. There are in it three or four good Streets, but no very good Market-place. It is in Strength inferior to *Shrewsbury*; for Greatness and Beauty equal. By the Way, as I came hither, I passed *Bridgenorth*, where I saw a fair Street of new-built Houses, and divers little Houses cut out of the Rock, particularly a great Wine Cellar, which deserves to be seen. I had a Prospect of *Worcester* from the Steeple of the Cathedral. In the Choir is a *Monument* of King *John*, with a Crown on his Head, lying between two Bishops. No Inscription, but only on the Top of his Head, within the Crown, *Johannes Rex Anglie*, which I suspect to be of a later Date. Here is also a *Monument* for Prince *Arthur*,

K inscribed

inscribed, *Here lieth Prince Arthur, the First-begotten of Henry the 7th, &c. who died in the 17th Year of his Age, and in the Year of our Lord 1502.*

September the 13th, I rode to *Gloucester*, where I saw the great Church, and therein the *Monument* of *Robert de Courtois*, his Effigies in Wood lies cross-legged; also the Monument of one *John Jones*, who had been thrice *Mayor*, and *Secretary* to Six *Bishops*, who died the Morrow Night after that his Monument was finished; another of *Edward II.* but a poor one for a King. I saw also the *Whispering-place*, and the new *Library*. There is the fairest and largest *Cloister* that I had any where observed. The Town consists principally of two Streets crossing one another.

September

September the 14th. From *Gloucester*, I set forward for *Cambridge*, lodging the First Night at *Stow* in the *Wold*. The next Day passing through *Banbury*, I reached *Foster's-Booth* that Night. I had Thoughts of getting to *Cambridge* the next Day; but through Defect of my Horse I fell short, and was forced to take up at *St. Neots*, where I rested *Sunday*, and on *Monday* finished my Voyage, arriving at *Cambridge* the 18th about Noon.

ITINERARY II.

JULY the 26th, 1661, We (*a*) began our Journey northwards from *Cambridge*, and that Day, passing thro' *Huntingdon* and *Stilton*, we rode as far as *Peterborough*, 25 Miles. There I first heard the *Cathedral-Service*: the Choristers made us pay Money for coming into the Choir with our Spurs on.

July the 27th, We rode on to *Crowland*, 6 Miles; there we viewed the famous Abbey-Church, so much of it as is yet standing. The Roof within, covered with Wood, hath been curiously gilded; and round about on the Sides, underneath the Roof, are artificially carved many Species of

(*a*) Mr. *Willughby* was one of the Company.
Animals,

Animals, both Beasts and Birds. In the Time of the late Wars this Church was made a Garrison, and held for the King: When it was taken by the Parliament, one of the Town Soldiers, affrighted, got up to the Top of the Church above the Wood-work wherewith it is covered, and walked along, till he came to a Place where wanted a Board, there, whether casually slipping down, or voluntarily (or being astonied by the Soldiers calling upon him to come down) hung a long time by the Arms into the Church, which is of a great Height; till at last, being weary, he fell into the Church, but yet was not so dashed to Pieces with the Fall, but that he lived a Day or two. This Church seemeth to have been built Cathedral-wise, but now there remains only Part of the Body of the Church, the Choir

and cross Building being all fallen down. *Crowland* is noted for a (b) *Bridge*, standing on the Confluence of two Waters upon three Feet, without any Pillar in the Middle to support it. From *Crowland* to *Spalding* we rode upon a very firm Bank, for the Space of 8 Miles, lately thrown up by Colonel *Walton*. We observed at *Spalding*, Sir *Anthony Oldfield's* House. The Town is well built and handsome, such as no Man would hope to find in such Fens and Plashees as environ it on all Sides, especially not having the Benefit of the Sea. From *Spalding* to *Boston*, 12 Miles, very good Way in the Summer, and exactly level, without the least Hill or Rising.

(b) The Form of this *Bridge* may be seen among Messieurs *Bucks* Views of Castles, &c. in *England*.

By

By the Way we observed, that generally all along the Ridges of their Houses and the Corners (which Houses are covered with Thatch of Straw or Reed, and the Ridges and Corners made up with Clay) they plant House-leek in great Plenty, whether for Ornament or Use we did not enquire. At *Kirkton*, a Village near *Boston*, there is (which *Camden* also taketh Notice of) a very fair Church, built Cathedral-wise. This Town gives Original and Name to that Sort of Apples which are called at *Cambridge* corruptly *Girton Pippins*, of a very pleasant Taste. It's truly observed by *Camden*, that in *Holland* in *Lincolnshire*, and generally in all the Fen Countries, the Churches are very fair, and built of Stone, though the Country thereabouts, for many Miles, scarce affords a Pebble.

July the 27th, and the 28th being *Sunday*, we lodged at *Boston*. The Town for that Country is large, populous, and hath a good Trade. The Church is fair and great. The Steeple, for a Tower, the tallest that ever I saw; standing in a level Country, it may be seen for many Miles, and is also a Sea-Mark. From the Ground to the highest Top, the Ascent is of 364 Steps. The Lead Lanthorn (as they call it) is uncovered, and raised above the Leads to a very considerable Height, *viz.* 79 Steps. There is a kind of Exchange which they call the *Mart-yard* (by *Camden* called the *Gild*) and a Free-School, and some other Buildings which we took Notice of. The Town is governed by a Mayor, 12 Aldermen, &c.

July

July the 29th, We rode from *Boston* through *Lincoln*, to a Place called the *Spittle*, 34 Miles. By the Way we passed *Tatersball*, where there is a Castle belonging to the Earl of *Lincoln*. This, of a Market-Town, is the meanest that I have seen in the South of *England*. In *Tatersball* Park we first discovered *Pneumonanthe*, which afterwards, on many heathy Grounds, we found both in *Lincolnsbire* and *Yorkshire*. We passed very bad Ways, and had like to have been laid fast in a Place, called my *Lady's Hole*, in a rotten marshy Ground near *Tupham-Abbey*. As we proceeded towards *Lincoln*, we saw, on the left Hand, the Ruins of *Bardney-Abbey*; and on the Right of *Berlins* we passed over a great Water, at a Place called the short Ferry. At *Lincoln* we viewed the Cathedral, which is, indeed, a very beau-

beautiful Building, with a double Cross. We ascended one of the Steeples, of which the Church hath Three; one whereof hath in it five Bells, the Second six, the Third only *Tom*. The Choristers in this Church had no Surplices, but only Gowns with Capes faced with Lamb-skin. We saw the great Bell just mentioned, called great *Tom* of *Lincoln*, cast in the Year 1610. Here we found it true, *minuunt præsentia famam*. From this Steeple we had a Prospect of the City, which now consists only of one long Street. It is a mean and poor Place; not well built; of little Trade; many of the Churches fallen down; of no Strength. In this City we saw a Bowling-Green, in the Bottom of a Pit or Pond, which one would suspect should, in the Winter-time, be filled with Rain, and turned into a standing Pool of Water.

Water. The Town being full of Tumult, by reason that the Assizes were there that Day, we staid not all Night, but rode on 10 Miles further to the *Spittle*; where we found but bad Accommodations, because the Inn there had a little before been accidentally burnt down.

July the 30th, We went on from the *Spittle* to *Glandford-Bridge*, 10 Miles, and thence to *Barton* upon *Humber*, 8 Miles, from whence we ferried over ourselves and our Horses to *Kingston upon Hull*, 5 Miles. At *Hull* we were received by Soldiers, conducted to the Main-Guard, and examined by one Captain *Widdrington*, who was then upon Guard; who afterwards came to our Inn to visit us. In the Morning we went to see the great Church (which the Clerk

Clerk told us was called St. *Trinity's*). The Choir is very fair and large, but built of Brick. The Pillars in the Church and Choir very slender, so that the whole is lightsome. It is built in Form of a Cathedral, and hath, according to the Statute, a Suffragan Bishop. Every one that is buried here, gives Five Shillings and Six-pence towards the Repair of the Church. From the Steeple we had a Prospect of the Town, which is fair and well-built, every Street paved handsomely. It is fenced with a strong Brick-Wall, and a double Ditch, with an high Earth-Work between them. The Country round about is an exact Level, for 5 Miles from the Town every Way, and they say may be over-flowed, by cutting the Banks at full Sea, and letting in the Water, so that the Town is very
strongly

strongly situate and fortified, Nature and Art conspiring to make it impregnable. We observed, in a Close near the Town called *Granswick*, great Store of *Carum*; it grows in many Places about this Town, and in some Places of the Fens in *Lincolnshire*. In this Town there is a Foundation called *Trinity-House*, which is a Society of Merchants, and to it belong good Revenues. There are maintained thirty poor Women, called Sisters, every one of whom hath a little Chamber or Cell to live in. This Building consists of a Chapel, two Rows of Chambers below Stairs for the Sisters, and two Rooms above Stairs, one very fair, where the Brethren of the Society meet, in which hang many Tables of Orders for the Society's Government; another large Chamber where they make Sails: In the middle
whereof

whereof (c) hangeth the Effigies of a Native of Groenland, with a Coat of Skins upon him, sitting in a very small Boat or Canoe, covered with Skins: He hath, in his right Hand, a Pair of wooden Oars, wherewith he rows his Boat; in his left a Dart, with which he strikes Fish: On his Forehead a Thing like a Trencher, which serves as a *Bonne-grace*, to fence his Eyes from the Sun, and it may be too, from the dashing of the Water. Behind him lies a Bladder or Skin-Bag, in which we suppose he bestowed the Fish he caught. (Some told us it was a Bladder full of Oil, with which he used to allure

(c) Mr. Ray, in p. 25. of his foreign Travels, takes Notice of seeing a Groenland Man in his Boat, hanging in the Entry of the Chirurgical and Anatomical Theatre in *Delft*; and there mentions seeing the same in the *Trinity-House* in *Hull*.

the

the Fish to him). The Boat is covered over with the same it is made of, excepting one Hole wherein he sits, just fitted to his Body; so that when he sits in it, his Legs, and lower Part, are under Cover or Deck; the Boat is thus contrived, that when it shall be plunged by a Wave, it may rise again, no Water getting into it. This was the same individual Canoe that was taken, with all its Furniture or *Remex*, Anno 1613, in the Sea, by *Andrew Barker* of *Hull*. The *Groenlander* taken, refused to eat, and died with Hunger and Sullenness, in the Space of three Days. A great Whale-bone lies at the Door of the *Trinity-House*. We saw the Water-house, which furnisheth the whole Town with fresh Water. The Water is drawn up by Horses into two Cisterns, by a Device which I had not before observed. We viewed

also the Free-School, over which are two Rooms; one, in which the Merchants have their Feasts, another with Seats, wherein they meet to confer. The Town is governed by a Mayor and 12 Aldermen. The Mayor hath a large Mace borne before him on Festival Days, and a Cap of Maintenance, and a small Mace for ordinary Days; also two Swords, the lesser given by King *Richard II.* the larger by *Henry VIII.* but one borne at a Time. There is also a small Mace for the Water-Bailiff; also another little one called the *Blood-wipe*, which they use in parting of Frays, and he that draws Blood of another forfeits a Noble to the Mayorefs. Besides these, is a wooden Ensign like a Knife, called the *Admiralty Mace*, with which the *Water-Serjeant* arresteth Ships. At the Mayor's House is kept a fair Cup-board

board of public Plate belonging to the Town. The principal Commodities (exported at least) wherein the Town's Trade consists, are *Lead*, brought hither out of *Derbyshire*, and Cloth for Sails. This Town furnisheth the greatest Part of *Yorkshire*, and the adjoining Countries with Wines. We saw a public Building near the River *Hull*, which they call the Exchange. On the further Side of the River *Hull* stand three Forts; one called the *North-Blockhouse*, the middle-most the *Castle*, and the third the *South-Blockhouse*, all three garrisoned with Soldiers, and built of Brick. The *South-Blockhouse*, which commands the *Humber*, is in good Repair, the other two somewhat decayed. On the Tops of the Walls of this last, we observed the *common Pink* growing in great Plenty. King *Henry*

VIII. his House, called the Manor, is now the *Magazine*. *Hull* is noted for good Ale. The Town of *Hull* was (they say) of old Time, a small Village called *Wike*, till the Merchants, leaving the *Spurne* or *Sprun*, which is the utmost Point of *Holderness*, upon the Sea, because the Sea daily encroached upon their Town there, came and seated themselves here, twenty Miles higher up the *Humber*: Thence came *Hull* to its Growth and Riches. The Governor of the Town, at our being there, was the Lord *Bellasis*. There is an old Saying,

*When Dighton is pull'd down,
Hull shall become a great Town.*

This *Dighton* was a Village close by the Town, pulled down in the Time of the late Wars.

August the 1st, We proceeded on our Journey from *Hull*, through *Beverley*,

Beverley, to *Selby*, 27 Miles. At *Beverley* we staid to see the *Minster*, a very fair Building; the Roof an Arch of Stone. It hath a double Cross Building, one in the Choir. The Seats in the Choir were canopied over with very good carved Wood-Work with little Statues, which are now taken away. In the Church are several Monuments of the *Piercies* of *Northumberland*, the Earls whereof have added a little Chapel to the Choir, in the Window whereof are the Pictures of divers of that Family, curiously painted in the Glasse. At the upper End of the Choir, on the Right Side of the Altar, stands the *Freed-Stool*, of one entire Stone (which was formerly a Sanctuary) said to have been brought from *Dunbar* in *Scotland*, and behind it, in the Wall, a Well of Water. At the upper End of the Body of the Church, next

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the Choir, hangs an antient Table, in which are the Pictures of St. *John* (from whom this Church is named) and King *Ethelstan* the Founder thereof. Between them this Distich,

Als free make I thee,

As Heart may think or Egh may see.

King *Charles I.* coming into the Church, and reading those Verses, is reported to have added,

Even so free be.

Hence of old the Inhabitants of *Beverley* pay no Toll or Custom in any City, Town, or Port in *England*. In the Body of the Church we observed an antient Monument called *The Virgins Tomb*, because two Virgins, Sisters (whose Names they could not tell us), were buried there. These Virgins gave to the Town of *Beverley* a Piece of Land, into which any Freeman of the Town may put three
Milch

Milch Kine from *Lady-Day* to *Michaelmas*. At the lower End of the Body of the Church stands a very large and fair *Font* of *Agate* Stone. This Town is large and long; hath a spacious and handsome Market-place: There have been antiently in it four Churches, some of them now fallen into Decay. It is governed by a Mayor and 12 Aldermen. Here is the Seat of the Family of the *Gees*, whose Monuments we saw in the Church. The principal Church of the Town is St. *Mary's*, built Cathedral-wise. In the Year 1528, the Steeple fell down, in the Time of Divine Service, and beat down Part of the Church, and slew and wounded divers Men, Women, and Children. This we saw cut in Wood, about one of the uppermost Seats in the Church; *Prey ye for the Soules of the Men, Women, and Children,*

&c. When this Church was re-edified, one *Crosland*, who hath a Monument there, built two Pillars and an Half, upon which there is this Inscription, (which, for Mr. *Crosland's* Sake I copied out) XLAND AND HIS WIFF MADE THESS TO PILLORS AND AN HALFE. Here are divers Stories represented in Picture on the Roof, as particularly the Legend of *St. Catharine*. There is an old Inscription on the Roof of the North Isle;

*Mayn in thy Lyffing lowfe God abowen all
Thyng;*

*And ever thynk of the Begynning what shall
cowme of the Ending.*

From *Selby* we rode to *Wistow*, and from thence, the same Night, we went onward to *Pontefract*. By the Way we passed through *Hambleton*, a small Village, and had a View of *Brayton Bargh* (which is a Hillock covered

covered with Wood) upon Occasion whereof we were told a proverbial Saying or Rhyme;

*If Brayton Bargh, and Hambleton Hough,
and Burton Breame,
Were all in thy Belly, it would never be
teame.*

At *Pontefract*, a large Town, we saw the Ruins of that noted Castle (*d*) there, which, though built upon a firm Rock, is so utterly demolished from the Foundation, that there is little or nothing of the Walls remaining. We saw the Free-School, but a mean Building. In Dr. *Johnson's* Garden we found divers Plants which were new to us, *viz.* *Solidago Saracenica*, a kind of *Melilot-trefoil*, a Plant like

(*d*) Messieurs *Bucks* have published a Print of this famous Castle, from a Drawing taken during the Siege.

Muscipula Lobelij, with a triangular Seed-Vessel, called by *Herbarists Vaccaria*, *Scrophularia Tradescanti*, and some others. The Doctor was not then at home, else it is likely we might have observed more. At *Pontefract*, every Fortnight, on *Saturday*, is a Market or Fair kept for all sorts of Cattle, from *Lady-Day* to *Michaelmas*. Great Plenty of *Liquorice*, and the best in *England*, is planted about this Town; also *Skirrets* (e). *Pierpoint's* House in this Town is worth the taking Notice of.

August the 3d, We rode to *Knareborough* 20 Miles, but long ones, the Way mountainous. We passed through *Castlefyrth* (f), an antient Town, about three Miles from

(e) Or, as *Camden* calls them, *Skirworts*.

(f) Called by *Camden* *Castleford*.

Pontefract; where are sometimes digged up antient *Roman* Coins; some we gathered up among the People who had found them. We passed also the River *Calder* at *Medley-Bridge*. By the Way we had a Prospect of *Leadston-Hall*, belonging to Sir *John Lewis*, and another great House of the *Blands* on the Right Hand. Then we rode through a *Busbet*, or Common, called *Rodwell Hake*, two Miles from *Leeds*, where (according to the vulgar Tradition) was once found a Stag, with a Ring of Brass about its Neck, having this Inscription,

*When Julius Cæsar here was King,
About my Neck he put this Ring:
Whosoever doth me take,
Let me go for Cæsar's Sake.*

Thence we had a Prospect of the *Red-Hall* at *Whitkirk*, belonging to Sir
Arthur

Arthur Ingrame, where King *James* was said to be begotten. At *Leeds* (a large and rich Town, which hath a great Trade for Cloathing) we saw the new Church, which had been lately built by one *Harrison*, at his sole Charges, without accepting so much as a Day's Work from any Man. This *Harrison*, from a poor Boy, came to great Estate, the most whereof he bestowed in building this Church, and Alms-Houses for 30 poor Persons, which are near the Church. He is much commended there for his Justice, Temperance, and Charity. At *Knareborough*, on the River *Nid*, we saw divers memorable Things; as First, *St. Robert's Chapel*, a little Thing having an Altar in it, all hewn out of the living Rock; on the Outside, at the Door, is the Statue of *St. Robert*, cut out of the Rock. The old Woman,

man, who in a great measure gets her Living by shewing Strangers this Chapel, told us many Stories out of the Legend of *St. Robert*: Some of which, because we had before heard the Story of that Saint, we thought fit to commit to writing. *King John*, then, when he lived in the Castle of *Knareborough*, sent once for this *St. Robert*, who happening to be at his Devotions in this his Chapel, refused to go with the Messengers. The Messengers returning to the *King* with a Denial, were sent back again to tell *St. Robert*, that he must leave off his Devotions and come to the *King*, or else that he would fetch him. *St. Robert* still refusing to go, sent the *King* an Ear of Corn, with these Words, That he was serving Him who made that, and unless he could make such another, he would not attend on him till he had

had finished his Devotions. A Second Legend of *St. Robert* is this. *St. Robert* going to the *King*, complained to him that his *Deer* in the *Forest* of *Knareborough* did the poor Mens Corn much Harm; the *King* merrily asked him, Why they did not pound them? whereupon *St. Robert* catcheth two of the Stags, and putteth them into the Pinfold. The *King* wondering at it, asks him what he would desire in Recompence for the Poor. The Saint answered, Only as much Land as he could plow round with two Stags, in the Time of Divine Service. The *King* granting his Request, he encompassed a great Quantity of Land, which is now in the Occupation of the *Slingbyes*. The Picture of the Plow and Bucks is in one of the Church Windows at *Knareborough*. Another Legend of this *Saint* is, that a cer-
tain

tain Fellow feigned himself a Cripple; had tied up one of his Legs, and came to beg something of St. Robert, making great Complaint of his Lameness and Poverty. St. Robert, being very compassionate and charitable, saith to him, I have nothing left but one Cow, and that give I thee, as freely as ever GOD gave it me. Whence it is to this Day a Proverb among them thereabout, *As free as St. Robert gave his Cow.* So soon as the Fellow took the Cow by the Horn to lead her away, he proved a Cripple indeed, and could not let down his Leg. The Picture of this also is in one of the Church Windows. Sir *Henry Slingby* his Monument, built by himself before he was beheaded, is in this Church of *Knareborough*. We went to see St. Robert's Well, about a Mile distant from the Town. Hence we went to the *Drop-*
7
ping-

ping-Well, so called, because it falleth from a Cliff or Precipice not far from the River; it riseth in the Field a good Distance from the Place, where it falls down the high Bank; and any other running Water that falls down a Precipice might as well be called a Dropping-Well. Any dry Thing the Water covers over with a Crust or Bark of Stone; but soft, spongy, and succulent Things (into which it can soak and insinuate itself, as Moss, Green Leaves, Earth, &c.) it seems to convert into Stone, or at least, the Water petrifying in the Pores of them, makes the whole seem to be Stone.

August the 5th, We went to the *Spaw* at *Herrigate*, and drank of the Water. It is not unpleasant to the Taste, somewhat acid and vitriolick: Galls turn it into a dark Blue, somewhat

what purplish: It works chiefly by Urine. Then we visited the *Sulphur-Well*, whose Water, though it be pellucid enough, yet stinks noisomely like rotten Eggs, or *Sulphur auratum diaphoreticum*. It tastes very Salt, and upon Evaporation (as we were told) leaves behind a copious fixt Salt. Silver put into it is suddenly changed into a golden Colour, and being left a while in it, becomes blackish. Thence we went to (g) St. *Magnus* his Well at *Copgrave*, whither a great Number of poor People resort to bathe themselves. They put on their Shirts wetted in the water, letting them dry upon their Backs. This Water operates (if at all) by its extraordinary Coldness and Astringency: Near St. *Magnus* is a Well of great Virtue for the Eyes, which

(g) But according to *Camden*, St. *Mungahs*.
they

they call the *Eye-Well*. We thought it not worth the while to spend much Time to make Observations about these Waters, because they are already the Subject of two little Treatises, one by Doctor *Deane*, the other by Doctor *French*, who, (especially the latter) have written well and to the Purpose, with much Fidelity, of the Properties and Virtues (together with their Causes) of all these Waters. The same Day we viewed *Rippon*, a pretty Town, having a large square Market-Place; the *Minster* there is much inferior to *Beverley Minster*; one of the Steeples lately falling, broke down the Roof of one Wing of the Church, so that the whole is now much out of Repair. In a Vault, under the Body of the Church, called *St. Willfrid's Chapel*, we saw the Hole through a Wall, which they call *St. Willfrid's Needle*, where-
by

by the Priests of old were wont to try Women's Chastity. She that was a Virgin easily creeping through, but she that was corrupted (*b*) sticking fast by the Way. Here we omitted the Sight of *Fountain's Abbey*, where (*i*) *Robin Hood's Bow* is kept; a very pleasant and delectable Situation; as also of St. *Willfrid's Well*, the tutelar Saint of this Town. We were there the Day after St. *Willfrid's Sunday*, which is esteemed, by the Inhabitants, a great Festival, and thereon was wont to be held a great Fair after Evening Prayer. Leaving *Rippon*, we passed the same Day to *Borough-Bridge*, where we viewed

(*b*) An old Writer has observed, "However
 " the Thing may seem a Fable at first Sight,
 " yet if the Women, that have play'd false, be
 " with Child, it may be true without Wonder."

(*i*) This Outlaw lived in the Reign of
Richard I.

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the

the three Stones called the *Devil's Bolts* or *Arrows* by the Vulgar, and about which they have a Legend. They are tall and slender, four-square, of a pyramidal Figure, but not very sharp at the Top. They seemed to us to be factitious Stones, but yet endure the Weather exceeding well, and may, in Probability, stand there till *Dooms-day*. About a Mile hence, at a Place called *Aldburgh* (a small Village now, but of old a good *Roman* Town, and as yet a Borough), we gathered up among the People divers ancient *Roman* Coins, both Brass and Silver, which are daily found in the plowed Fields, and about the Streets there. Those Pieces that have radiate Crowns on the Heads of the Effigies, they call *Saracens Heads*, all the rest *Aldburgh* Half-pennies. Here we saw a Piece of the antient *Roman Pavement*, perhaps

haps *that* which they called *Tessellatum*. The Pieces of the Pavement which we saw, were about two Inches Diameter, not perfectly Square, but of the Form of a Lozenge, some Red and some Black, which we suppose were Marble. This Night we lodged at a small Village called *Hamerton*, about six or seven Miles from *York*.

August the 6th, We rode back again to *York*. There first of all we visited the Minster, which is, indeed, a large and stately Fabrick, but in some Things inferior to *Beverley Minster*, viz. in the Multitude of marble Pillars, and in the arched Roof of Stone. The Body of the Church and Choir is very broad, the Lanthorn high and large, which we ascended by 274 Steps, many of them high ones. The Front of the

M 2

Choir,

Choir, respecting the Body of the Church, is adorned with the Statues of all the Kings of the House of *York*, carved in Stone. It is said, there is a large *Vault* under the Choir, and from thence a Passage to *Ouse-Bridge*. There are divers ancient Monuments in the Church, but none very sumptuous; at the East End the Tomb of *Tobias Matthews*, Archbishop, who gave his Library to the Church. We searched for, but found not, the Grave-Stone of *Winwall*, on which was this Inscription in *Latin*; *Musicus & Logicus*. *Winwall hic jacet ecce Johannes. Organamque loqui fecerat ille quasi.* Which a certain witty Gentleman thus rendered into *English*,

*Musician and Logician, John Winwall
lieth here,*

*The Organs for to speak, that made even as
it were.*

They

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They have still preserved in this Church their fair *Communion Plate*, most of it given by King *Charles I.* There is also a *Common-Prayer Book* and a *Bible*, with gilded Silver Clasps and Bosses, given by the same King; and on the Inside of the Clasps is inscribed *Ex dono Regis Caroli, 1633.* In the Wall of the Vestry is a Well of very sweet and pleasant Water, called *St. Peter's Well*, which tastes almost like Milk. There is a large octagonal *Chapter-house* of 21 Yards Diameter, at the Door whereof is that Verse, mentioned by *Heylin*,

*Ut Rosa flos florum,
Sic est Domus ista Domorum.*

York is a large City, and indifferently well built; the Streets handsome, but narrow; it hath 24 Churches in it. We observed the great Arch of *Ouse-Bridge*, but could not exactly mea-

sure the Breadth of it, but guessed it to be about twenty Yards. We remarked an House on the *Pavement* so over-hung, that the Top of the Building projected five Yards beyond the Foundation. The City of *York* is governed by a Lord-Mayor, 12 Aldermen, 24 Assistants, 8 Chamberlains, 64 Common-Council Men, and two Sheriffs.

August the 7th, We directed our Course for *Scarborough*, and that Night lodged at *New-Malton*, 13 Miles from *York*. We passed by *Kirkham-Abbey*, and at a Distance saw *Croke-Castle*, and *Sheriff-Hutton Castle*. The Country about *York* is near a Level every Way, for at least ten Miles Riding. There is at *Malton* a small Spring, which seems to be of the same Nature with the *Knareborough Spaw*; it is ill kept,
and

and no plentiful Spring. At this Town is a famous Horse-Fair, kept on *September* the 29th, and for the best Saddles. Here is a good House of the Lord *Eures*.

August the 8th, We arrived at *Scarborough*, distant from *Malton* 16 Miles. This Town hath a great Trade of Fish taken thereabout. We saw *Ling*, *Codfish*, *Skate*, *Thorn-back*, *Turbot*, *Whiting*, and *Herring*. They take also *Conger*, *Bret*, *Haddock*, and *Mackrell*. They have an artificial Harbour or Pier, made of vast Stones, piled one upon another, without Cement, for Security of their Vessels of Trade. The like, though not so large, is at *Lyme* in *Dorsetshire*, called the *Cob*. We observed in *Ling* the *intestina cæca*, which they call *Kelk*, to be larger, and fewer in Number, than in the

Codfish. The *Turbot* hath three large *intestina caeca* a little below the Stomach, which is also very large. We saw there, among others, a long, large, cartilaginous Fish, which they call an *Hay*, not much unlike (they say) to a *Dog-Fish*. The *Haddock* is somewhat like to a *Whiting*, but larger; it hath a great Head, *pro-ratione Corporis*, and large Eyes. It is marked about the Middle of the Body with a Black Spot on each Side, about the Bigness of a Three-pence, which (they say) is the Print of St. *Peter's* Thumb and Fore-Finger, between which he took up that Fish, and marked it for himself. We saw here two Sorts of *Starfishes*, the common one with five *Radii*, and another which hath ordinarily thirteen, sometimes fourteen, as we observed in one or two. Here is a Piece of a Castle standing upon an high Cliff, hanging

hanging over the Sea on one Side, and the Town on another; a Place of great Strength, and still held with a Garrison: There is a Well of fresh Water within Half a Yard of the Edge of the Top of the Cliff (*k*); only an Hill, about half a Mile or more distant, matches, if not exceeds, it in Height. We drank of the *Spaw Water* there, which, by Report of those who have tried both, is more nimble in its Working than the *Knareborough Water*, and purges more by Stool. The Powder of Galls presently turns it to a murry or purplish blue Colour, not much unlike to the Syrup of Violets, and by standing (as Dr. *Witty* observes) an Hour or two, we found that it would grow clear again, and precipitate to the Bottom such a coloured

(*k*) See Dr. *Witty's* Book.

Powder in great Quantity. We tried also to coagulate therewith boiling Milk, which by boiling a while together it did, yet but faintly, and made us a Posset not unpleasant to drink. The Well is at the Foot of the Cliff by the Sea-Side, about Half a Mile from the Town Southward. On the Shores hereabout are found clear White Pebbles, which by Jewelers are polished and cut in the Manner of Diamonds, and placed in Rings.

August the 9th, From *Scarborough* we journeyed to *Whitby*, 12 Miles; the Way stony and uneven, much like the *Peak Ways* in *Derbyshire*. We passed by a little Village called *Robin Hood's Bay*, near whereto, on the Ascent of the Hill, by the Way Side, we took Notice of a vitriolick Well, of the same Taste
with

with the *Spaws*, so far as we could judge. Upon the Shores about *Whitby*, we found long *Sea-Laces* of a Yellow Colour, of about one Yard and an Half in Length, and smallest at both Ends, cast up by the Working of the Sea, somewhat bigger than the largest Packthread commonly sold in Shops. Also two Sorts of *Fucus marinus*, besides the common *Phasganoides*. The one ariseth with a round Stalk, of about the Bigness of a Finger, more or less, and about a Foot long, and then follows one only single undivided broad Leaf, of a Yard or more long, and sometimes three or four Inches broad, wrought, as it were, all along with extuberant Lines waved to and fro. It somewhat resembles a broad wrought Leathern Girdle or Belt. The other, which is the *Fucus marinus secundus* *Dod. Park.* is branched
at

at some Distance from the Root, and narrow, resembling Thongs of Whit-Leather. A little above the rest we found, in all that we observed, a round Circle like a *Rotula* about the Stalk, of about an Inch Diameter or more, of the same Substance with the *Fucus*, but thinner. This Plant might be better expressed by a Figure, than described by Words. All along in the Cliffs, and on the Shore, are found in great Plenty the *Serpent-Stones*, called by Naturalists in *Latin*, *Cornua Ammonis*. We were somewhat puzzled to get them entire out of their *Matrices*, the usual Way of heating them in the Fire very hot, and then quenching them in the Water, not always succeeding; many of these Stones were imperfect. In this Cliff or Rock (which is nothing but Alum-Mine) we found also Plenty of the *Lapides belemnites*, or *Thunder-Stones*.

Stones. Another Sort of Stones we found there resembling Cockles, or rather a Sort of Muscles. There is also *Lapis Gagates*, or *Jet*, found in the Cliffs hereabout; but we met not with any, besides a Stone which is or resembles *Brass-Mine*. The Country People hereabout told us the Story related by *Camden*, that *wild Geese*, if once they light in *Whitby Strand*, cannot rise again or fly away, as the Rhyme is;

*If the Wild Goose lights in Whitby Strand,
The least Bearn that is, may take her up in
his Hand.*

Here hath been a very large and fair *Abbey*, the Church whereof is yet standing almost entire. This belongs to the *Cholmondeleys*. There are the same Sorts of Fish taken at *Whitby* as at *Scarborough*; and some others they named to us, as *Dabs*, *Billards*,
White-

Whitemaws, Sword-Fishes, Seals, &c. which we saw not. Near this Town are one or two Alum-Works. (1) The Process of making Alum we partly saw, and partly received by Relation from the Workmen. In the Alum-Mine are found very hard round Stones, which the Workmen call *Cats-Heads, ob Similitudinem.*

We saw here all along the Shores the People making of *Kelp*, which they do, by laying the *Alga* & *fucus marinus* on Heaps, and when it is dry, burning it; while it is burning, they stir it to and fro with an iron Rake, and so it condenses and cakes together, in the manner we see *Kelp*; whereas, should they not stir it, it would go to Ashes, as other Plants burned use to do; *si fides autoribus.*

(1) Of which, an Account may be seen in Mr. Ray's *Collection of English Words.*

Whitby hath a very fair and commodious Haven: About sixty Ships of eighty Tons a-piece, or more, belong to this Town: It is governed by Twenty-four Burgeſſes. *S. Hildas*, by his Prayers, delivered the Country from Snakes, which were changed into theſe Stones (*vide Camden*); *ſi credere fas ſit*.

From *Whitby*, *Auguſt* the 12th, We haſtened to *Giſburgh (m)* where we ſaw the Ruins of that famous Abbey, the Church whereof ſeems to have been comparable to the beſt Cathedrals in *England*. We aſcended the Top of that noted Hill, called

(*m*) “Formerly (ſaith *Camden*) very famous
“ for a beautiful and rich Monastery—and may,
“ in Point of Pleaſantneſs, and a grateful Variety,
“ and other Advantages of Nature, compare with *Puteoli* in *Italy*.”—See Biſhop *Gibſon*’s Edition of *Camden*, p. 910.

Roseberry,

Roseberry, or *Ounsberry Topping*, the Top whereof is fastigate, like a Sugar Loaf, and serves for a Sea-mark. It may be seen at a great Distance, *viz.* from *Stanmore*, which is in a right Line above 20 Miles off. From hence we had a Prospect of that pleasant and fruitful Vale, Part whereof is called *Cliveland*, a Country noted for a good Breed of Horses. The Ways here in Winter Time are very bad, and almost impassable, according to that proverbial Rhyme,

*Cliveland in the Clay,
Bring in two Soles, carry one away.*

Near this Hill we went to see a Well celebrated for the Cure of sore or dim Eyes, and other Diseases. Every one that washes in it, or receives Benefit by it, ties a *Lacinia*, or Rag of Linnen or Woollen, &c. on a Shrub or Bush near it, as an Offering

ing or Acknowledgement. The People of *Gisburgh* are civil, cleanly, and well-bred, contrary to the Temper of the Inhabitants of *Whitby*, who, to us, seemed rude in Behaviour, and fluttish. In the Way from *Whitby* to *Gisburgh*, we passed by *Freeburgh Hill*, which they told us was cast up by the Devil, at the Entreaty of an old Witch, who desired it, that from thence she might espy her Cow in the Moor. On this Moor, not far from *Freeburgh Hill*, we found *Bifolium minimum* J. B. At *Gisburgh* there are two Alum-Works, one belonging to the *D'Arcies*, the other to the *Challoners*, not wrought at present.

August the 13th, We observed all along in the Midland, many Miles from the Sea, Store of *Sea-Plantain*. We rode to *Duresme*, 24 Miles;
N to

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to wit, from *Gisburgh* to *Stockton*, where we ferried over the *Tees*, 8 Miles; by the Way we saw at a Distance, the strong, now poor Town of *Hartlepool*; from *Stockton* to *Duresme* 16 Miles. *Duresme* is a large scattering Town, but in most Mens Account pleasantly situate; encompassed with the River *Were* almost round, the remaining Neck of Land walled. The River is passed with three fair Stone Bridges. The Suburbs are greater, by much, than the Town contained within the Walls and River. The Cathedral Church is a very plain and mean one, but a strong Building; the Pillars great and bulky; there is a very fair Cloister yet remaining, and a Number of handsome Stone Buildings, which belong to the *Dean* and *Prebendaries*. The Bishop's Palace (all that he hath in the Town) is the Castle,

Castle, where also the Affizes are held. The Bishop entertains the Judges, here being no *Sberiff* but himself.

August the 14th, We rode to *Newcastle*, 12 Miles; in the Way we saw *Lumly-Castle*, a gallant Building. This Town is large and well built, especially about the Market-Place and Key, where the Houses, for Height and Shew, are comparable to the Houses in *London*. By Reason of its great Trade it is very populous, in Multitude of Inhabitants thought not inferior to the City of *York*. A fair Stone Bridge of nine Arches joins it to *Gatefide* or *Gateshead*, which is the Name of that Part of the Town which lies on the South Side of the River. This Town is notable for four Things.
1. The Strength and Thickness of
N 2 the

the Walls. 2. The Key, which is thought to be as convenient, useful, handsome, and deep, as any in *England*. 3. The cross Arch of Stone on one of the Steeples. 4. And especially the great Trade of Coals, Salt, Grind-Stones exported, &c. to which might be added, the newly built Exchange and Guildhall, a very large and fair Room paved with Black and White Marble. Within the Walls of this Town there is an old Castle, wherein the Assizes for the County are held, which is not within the Liberties of the Corporation.

August the 15th, We travelled from *Newcastle* through *Morpeth*, to *Alnwick*, 26 Miles, which Town is under a *Bailiff*; every Trade chuses an Alderman; the chief Trade is Tanning. Here we saw a goodly and strong Castle, well walled, and
not

not yet run much to Decay, belonging to the Eärle of *Northumberland*. This Country is thinly inhabited, very bleak and barren.

August the 16th, We rode in Sight of the *Holy Island* (n), but the Tide served us not to pass over.
Here

(n) When Mr. Ray, with Mr. *Willisell*, made a Second *Simpling Voyage* (as he expresses it) into these Parts in the Year 1671, he remarked as follows; to wit, “ *July* the 22d, We rode from “ *Cheviot*, or rather *Waller* or *Wooler*, to the “ *Holy Island*, 9 Miles. Where we gathered, on “ the Sea-Shore, under the Town, those Stones “ which they call *St. Cutbert's Beads*, which “ are nothing else but a Sort of *Entrocki*.

“ From the *Holy Island* we rode over the Sands “ to *Goswick*, and so on to *Berwick*, 7 Miles.

“ We rested at *Berwick* Sunday *July* the 23d; “ and in the Forenoon heard one *Smithson*, Minister here; in the Afternoon we walked out to “ *Morrington* to hear a *Scottish* Sermon, in a very “ small Parish Church. In the *Holy Island* I

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Here we had with Confidence asserted and confirmed to us this Legend ;
that

“ found growing, *Aparine major Plinii*: Upon
“ the Walls of *Berwick*, by the Sea-Side, *Ery-*
“ *simum latifolium Neapolitanum*. About 2 Miles
“ from *Berwick*, by the Side of a Rivulet, in a
“ boggy Ground, not far from the Road lead-
“ ing to *Edinburgh*, we found a Sort of *Pseudo-*
“ *asphodelus* which I had never before seen, much
“ less than that common in *England*, having,
“ as I guess, White Flowers in a Spike, to
“ which succeed roundish Seed-Vessels. The
“ Stalk of the Spike is naked, or not having
“ above one Leaf, the Spike itself short, the
“ Root fibrous, as that of the common.

“ July the 24th, We left *Berwick*, and rode
“ first to *Scrammerston-Mill*, about a Mile and
“ an Half distant, where we observed the *Ecbium*
“ *marinum*; it hath a Blue Flower, almost of
“ the Figure of *Honey-wort*, but shorter. The
“ Leaves are small, of a Glaucous Colour, like
“ to Woad or Hounds-Tongue; for Figure not
“ much unlike the *Sea-Beet*, but less, &c.
“ Thence we rode to a Village called *Bambo-*
“ *rough*, nigh to the *Farn Islands*, where Sir
“ *William Forster* dwells. There is an old Cas-
tle,

that the Ebbs are so great, and Floods
so low, on the *Lord's Day*, that a
Man

“ the standing on a Rock, which was once very
“ strong; also the Ruins of an old Abbey.

“ The following Birds build on the *Farn-*
“ *Islands*; *Guillimets*, *Scouts* or *Razor Bills*, *Coun-*
“ *ternebs*, which build in Holes, and I guess
“ them to be *Anates Arcticæ Clusii*, *Scarfs*, i. e.
“ *Shags Cornub.* *Cutbbert-Duck*, bigger than a
“ *Wild-Duck*, of a Brown Colour, the Drake is
“ White on the Back, the Tail and Feathers of
“ the Wings Black, the Legs also Black. It
“ hath a *Posticus Digitus*; the Bill is scarce so
“ long as a Duck's; the superior Mandible is a
“ little crooked at the End, and over-hangs the
“ inferior: But that which is most remarkable
“ is, that on both Sides the Bill, the Feathers
“ come down in an acute Angle, as far as the
“ Middle of the Nostril below. *Puffinet*, which is
“ as big as a Pigeon, hath a small sharp-pointed
“ Bill, Black in the Summer, having only a
“ White Spot in each Wing, but White in
“ Winter, lays two Eggs, and builds in an
“ Hole under a Rock. *Annet*, a Gull, but
“ small and White, only the Tips of the Wings
“ Black, Yellow Bill. *Cattiwike*. *Mire-Crow*,
“ all White-bodied, only hath a Black Head, a

Man in the Morning may go in thither to Divine Service, and in the Evening return home dry on Foot throughout the whole Year, though on other Days it be impossible to do the like. There may be seen in this Island a strong, and almost impregnable Fort or Castle, and an old Church. We saw also *Farn Island* at a good Distance. The Country abounds with Castles, by reason of its Vicinity to *Scotland*. The Church in *Holy Isle* is reputed the most ancient Cathedral in *England*, built by S.

“ little bigger than a Pigeon. *Puets*. *Pick-*
 “ *Mire*, i. e. a Sea Swallow, *fortè*. *Tern*, a
 “ small Gull, the least of all, having a forked
 “ Tail. *Sea-piots*, i. e. *Sea-pies*, as far as I
 “ could guess. Great Quantity of *Sea-Calves*
 “ taken upon these Islands, whereof the Farm-
 “ ers make their chief Profits, *viz.* of their
 “ Oil. *Kir-Bird*, a Sort of *Columbus*, less than
 “ a Magpy, Black and White, and stands strait
 “ upright. *Gorges*, a Fowl bigger and redder
 “ than a Partridge.”

Cuthbert,

Cuthbert, whose Body, by the Monks of this Church, was conveyed to *Duresme*, when the *Danes* pillaged and spoiled the *Island*. This Night we lodged at *Berwick*; our Journey was of about 25 Miles. The River *Tweed* is here joined with a Stone Bridge of 15 Arches. Here hath been a very goodly Castle, which is now demolished. The upper Town is encompassed with a Wall which is not very strong; within this Wall is a large void Ground or Green, whereunto the Inhabitants bring their Cattle, and let them stay all Night, and in the Morning drive them out again to Pasture. The lower Town is very strongly fortified with a broad and deep Ditch of Water, and against it an impenetrable Bulwark or Bank of Earth, faced with Free Stone against the Ditch. There are also for Defence, four tall Platforms or Forts, besides

besides external Fortifications. This Town is still kept with a strong Garrison. There is in it a fair Church, built by *Oliver Protector*. Here we saw, in the Cliff by the Shore, a Cave called the *Burgesses Cave*, not worth the remembering, and an Hole in a Rock, through which a Boat may pass at full Sea, called the *Needle's-Eye*.

August the 17th, We travelled to *Dunbar*, a Town noted for the Fight between the *English* and *Scots*. The *Scots* generally (that is the poorer Sort) wear, the Men Blue Bonnets on their Heads, and some Ruffet; the Women only White Linnen, which hangs down their Backs as if a Napkin were pinned about them. When they go abroad none of them wear Hats, but a party coloured Blanket, which they call a Plad, over their Heads

Heads and Shoulders. The Women generally to us seemed none of the handsomest. They are not very cleanly in their Houses, and but fluttish in dressing their Meat. Their Way of washing Linnen is to tuck up their Coats, and tread them with their Feet in a Tub. They have a Custom to make up the Fronts of their Houses, even in their principal Towns, with Firr Boards nailed one over another, in which are often made many round Holes or Windows to put out their Heads. In the best *Scottish* Houses, even the King's Palaces, the Windows are not glazed throughout, but the upper Part only, the lower have two wooden Shuts or Folds to open at Pleasure, and admit the fresh Air. The *Scots* cannot endure to hear their Country or Countrymen spoken against. They have neither good Bread, Cheese, or Drink. They

They cannot make them, nor will they learn. Their Butter is very indifferent, and one would wonder how they could contrive to make it so bad. They use much Pottage made of Coal-wort, which they call *Keal*, sometimes Broth of decorticated Barley. The ordinary Country Houses are pitiful Cots, built of Stone, and covered with Turves, having in them but one Room, many of them no Chimneys, the Windows very small Holes, and not glazed. In the most stately and fashionable Houses, in great Towns, instead of Cieling, they cover the Chambers with Firr Boards, nailed on the Roof within Side. They have rarely any *Bellows*, or *Warming-Pans*. It is the Manner in some Places there, to lay on but one Sheet as large as two, turned up from the Feet upwards. The Ground in the Valleys and Plains bears

bears good Corn, but especially *Beer-Barley* or *Bigge*; and *Oats*, but rarely *Wheat* and *Rye*. We observed little or no fallow Grounds in *Scotland*; some layed Ground we saw, which they manured with Sea-wreck. The People seem to be very lazy, at least the Men, and may be frequently observed to plow in their Cloaks. It is the Fashion of them to wear Cloaks when they go abroad, but especially on *Sundays*. They lay out most they are worth in Cloaths, and a Fellow that hath scarce ten Groats besides to help himself with, you shall see come out of his smoaky Cottage clad like a Gentleman.

There hath formerly been a strong Castle at *Dunbar*, built on a Rock upon the Sea, but it is now quite ruined and fallen down. Yearly, about this Time, there is a great Confluence

Confluence of People at *Dunbar*, to the *Herring-Fishing*; they told us, sometimes to the Number of 20,000 Persons; but we did not see how so small a Town could contain, indeed give Shelter to, such a Multitude. They had at our being there two Ministers in *Dunbar*; they sung their *Gloria Patri* at the End of the Psalm after Sermon, as had been ordered by the Parliament, in these Words;

*Glore to the Father and the Sonne,
And to the Holy Gheast;
As it was in the Beginning,
Is now, and aye doth last.*

There is in the Church a very fair Monument of the *Earl of Dunbar, George Howme*, made in King *James's* Time.

August the 19th, We went to *Leith*, keeping all along on the Side
of

of the *Fryth*. By the Way we viewed *Tontallon Castle*, and passed over to the *Basse Island*; where we saw, on the Rocks, innumerable of the *Soland Geese* (o). The old ones are all over white, excepting the Pinion or hard Feathers of their Wings, which are Black. The upper Part of the Head and Neck, in those that are old, is of a yellowish Dun Colour. They lay but one Egg apiece, which is White, and not very large: They are very bold, and sit in great Multitudes till one comes close up to them, because they are not wont to

(o) “ *In Scotiâ Anatum, seu Anserum Genus, Bernacles, ex Conchis aut Arboribus vulgo nasci perhibetur.*” *Ex Everardi Ottonis Notitiâ præcipuarum Europæ Rerumpub. Cap. IV. Sect. 1. P. 297.*

This Name of *Bernacles*, as applied to the *Soland Goose*, explains what *Cleaveland*, in his *Satyr* upon the *Scotch*, means by *Feeding on Bernacles*.

be

be scared or disturbed. The young ones are esteemed a choice Dish in *Scotland*, and sold very dear (1 s. 8 d. plucked). We eat of them at *Dunbar*. They are in Bigness little inferior to an ordinary Goose. The young one is upon the Back Black, and speckled with little White Spots, under the Breast and Belly Grey. The Beak is sharp-pointed, the Mouth very wide and large, the Tongue very small, the Eyes great, the Foot hath four Toes webbed together. It feeds upon Mackrel and Herring, and the Flesh of the young one smells and tastes strong of these Fish. The other Birds which nestle in the *Basse* are these; the *Scout*, which is double ribbed; the *Cattiwake*, in *English* *Cormorant*; the *Scart*, and a Bird called the *Turtle-Dove*, whole footed, and the Feet Red. There are Verses which contain the Names of these
Birds

Birds among the Vulgar, two where-
of are,

*The Scout, the Scart, the Cattiwake,
The Soland Goose sits on the Lack,
Yearly in the Spring.*

We saw of the *Scout's Eggs*, which
are very large and speckled. It is
very dangerous to climb the Rocks
for the Young of these Fowls, and
seldom a Year passeth, but one or
other of the Climbers fall down and
lose their Lives, as did one not long
before our being there. The *Laird*
of this Island makes a great Profit
yearly of the *Soland Geese* taken; as
I remember, they told us 130*l.*
Sterling. There is in the Isle a small
House, which they call a Castle; it
is inaccessible and impregnable, but
of no great Consideration in a War,
there being no Harbour, nor any
Thing like it. The Island will afford

Grass enough to keep 30 Sheep. They make Strangers that come to visit it *Burgesses* of the *Basse*, by giving them to drink of the Water of the Well, which springs near the Top of the Rock, and a Flower out of the Garden thereby. The Island is nought else but a Rock, and stands off the Land near a Mile; at *Dunbar* you would not guess it above a Mile distant, though it be thence at least Five. We found growing in the Island, in great Plenty, *Beta marina*, *Lychnis marina nostras*, *Malva arborea marina nostras*, & *Cochlearia rotundifolia*. By the Way also we saw *Glasses* made of *Kelp* and Sand mixed together, and calcined in an Oven. The Crucibles which contained the melted Glass, they told us were made of Tobacco-Pipe Clay.

At

At *Leith* we saw one of those Citadels built by the *Protector*, one of the best Fortifications that ever we beheld, passing fair and sumptuous. There are three Forts advanced above the rest, and two Platforms. The Works round about are faced with Free-Stone towards the Ditch, and are almost as high as the highest Buildings within, and withal, thick and substantial. Below are very pleasant, convenient, and well built Houses for the Governor, Officers, and Soldiers, and for Magazines and Stores; there is also a good capacious Chapel, the Piazza, or void Space within, as large as *Trinity-College* (in *Cambridge*) great Court. This is one of the four Forts. The other three are at *St. Johnston's*, *Inverness*, and *Ayre*. The Building of each of which (as we were credibly informed) cost above 100,000*l.* Sterling;

O 2

ling; indeed I do not see how it could cost less. In *England* it would have cost much more.

At *Edinburgh* we went to the principal public Buildings; those are,
 1. The *Castle*, a very strong Building, on a precipitious solid Rock. It is one of the King's Houses, but of no very great Receipt: In it are kept the *Crown* and *Scepter* of *Scotland*. There was then lying in the Castle Yard an old great Iron Gun, which they called *Mounts Meg*, and some *Meg* of *Berwick*, of a great Bore, but the Length is not answerable to the Bigness. 2. *Heriot's Hospital*, a square Stone Building, having a large Turret at each Corner. It hath very spacious and beautiful Gardens, and is well endowed. There is a Cloister on both Sides of the Court, on each Hand as one goeth
 in,

in, and a Well in the Middle thereof. At our being there it maintained threescore Boys, who wore Blue Gowns; but they told us it was designed for other Purposes. It would make a very handsome College, comparable to the best in our Universities. Over the Gate, within Side, stands the Figure of *G. Heriot* the Founder thereof, and under him this Verse.

Corporis hæc, animi est hoc opus Effigies.

3. The College, for the Building of it but mean, and of no very great Capacity, in both comparable to *Caius College* in *Cambridge*. Most of the Students here live after the Fashion of *Leyden*, in the Town; and wear no Gowns till they be *laureat*, as they call it, that is, commence. At our being there (being the Time of the Vacancy) there was not a Student

in Town; the *Premier* also, as they call him, was absent at *London*. In the Hall of this College the King's Commissioner, *Middleton*, was entertained by the Citizens of *Edinburgh*. 4. The *Parliament House*, which is but of small content, as far as we could judge, not capable of holding 200 Persons. The *Lords* and *Commons* sit both in the same Room together. There is also a Place which they call the Inner House, in which sit 15 *Lords*, chosen out of the House, as it were a grand Committee. There is an outer Room like the Lobby, which they call the waiting Room; and two other Rooms above Stairs, where Commissioners sit. We saw *Argyle* and *Guthry*, their Heads standing on the Gates and Toll-booth. At the Time we were in *Scotland*, divers Women were

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were burnt for Witches, they reported, to the Number of about 120.

August the 21st, We went on Northward as far as *Sterling*, 24 Miles. By the Way we saw the King's Palace at *Lithgow*, built in the Manner of a Castle, a very good House, as Houses go in *Scotland*. There is a small Lough or standing Water on two Sides of the House. This Lough formerly was never without Swans: But Mr. *Stuart*, one of the Bailiffs of the Town, told us a strange Story of those Swans, which left the Lake when the House was taken and garrisoned by the *English*; and although two were brought on purpose for Trial, yet would they not stay there; but at the Time of the King's coming to *London*, two Swans, *nescio unde sponte & instinctu proprio*, came thither,

O 4

and

and there still continue. This *Stuart* hath nourished in his Garden divers exotick Plants, more than one would hope to find in so northerly and cold a Country; some such as we had not before seen, viz. *Archangelica*, *Fumaria filiquosa*, *Carduus lacteus peregrinus* flo. albo, *Verbascum* 4 *Matth. angusti folium*, *Anchusæ species* flo. parvo nigricante, *Alcea surrecta lævis* flo. amplo rubro & albo, as we then named them. *Sterling* is an indifferently handsome Town, hath a good Market-place, two Palaces, one of the Earl of *Marr*, the other of the Marquis of *Argyle*. But the Castle is most considerable, and hath been, and, with little Cost, may be again made, a very magnificent House. It hath an Hall longer, if not broader, than *Trinity-College Hall* in *Cambridge*. The Building, added by *James V.* contains many very stately Rooms

Rooms both for Lodging and Entertainment, in many of them very good carved Wood-Work on the Roofs. There is also a Chapel built by *James VI.* at the Birth of his eldest Son, in which we saw a Model of *Edinburgh* Castle, and the Ship in which they served up the Meat into the Hall, when Prince *Henry* was baptized. This Castle stands on a high and steep Rock; under the Building are many Vaults cut out of the Rock, and one under another. The Castle, on our being there, was garrisoned with 200 *English*. The Commissary told us that the greatest Inconvenience of that Castle, in Case of a Siege, was, that upon the Discharging of the great Guns, the Water in the Wells would sink, and the Wells become dry; of which it is easy to render a probable Reason. *Sterling-Bridge* is considerable for nothing,

nothing, but that it is a Pass. The River here, *Mæander* like, takes Circuits, and almost meets itself again, and that for a considerable Space, both on the one and the other Side of the Bridge; so that what is by Land but 4 Miles, is by Water 24.

From *Sterling* we went, *August* the 22d, to *Glasgow*, which is the second City in *Scotland*, fair, large, and well built, cross-wise, somewhat like unto *Oxford*, the Streets very broad and pleasant. There is a Cathedral Church built by Bishop *Law*; they call it now the *Highb Kirk*, and have made in it two preaching Places, one in the Choir, and the other in the Body of the Church; besides, there is a Church under the Choir, like *St. Faith's* under *Paul's*, *London*; the Walls of the Church-Yard

Yard round about are adorned with many Monuments, and the Church-Yard itself almost covered with Grave-Stones; and this we observed to be the Fashion in all the considerable Towns we came into in *Scotland*. The Bishop's Palace, a goodly Building, near to the Church, is still preserved. Other Things memorable in this Town are, 1. The *College*, a pretty Stone Building, and not inferior to *Wadham* and *All Souls* Colleges in *Oxon*. The *Premier*, Mr. *Gelaspy*, was removed by the Parliament there. Here are (as they told us) most commonly about 40 Students of the first Year, which they call *Obedients*; near so many of the Second, which they call *Semies*; and so proportionably of the Third, which they call *Baccalors*; and the Fourth, whom they call *Laureat* or *Magisters*. It being the Time of Vacancy, we
saw

saw not the Habits which the Students use, 2. A tall Building at the Corner, by the Market-place, of 5 Stories, where Courts are kept, and the Sessions held, and Prisoners confined, &c. upon the Door whereof is this Distich;

*Hæc domus odit, amat, punit, conservat, honora,
Nequitiam, pacem, crimina, jura probos.*

3. Several fair Hospitals, and well endowed; one of the Merchants, now in building. 4. A very long Bridge of 8 Arches, four whereof are about 50 Feet wide each; and a very neat square Flesh-Market, scarce such an one to be seen in *England* or *Scotland*.

August the 23d, We rode to *Douglas*, 20 Miles. We passed through *Hamilton*, by the Way, an handsome little Market-Town, where is
a great

a great House of Duke *Hamilton's*. The Country all thereabout is very pleasant, and in all respects, for Woods, Pastures, Corn, &c. the best we saw in *Scotland*. At *Douglas* there is a Castle belonging to the Marquess *Douglas*, half a Mile distant from the Town; which, though it be a free Burgh, and without Doubt of great Antiquity, yet is a pitiful, poor, small Place, scarce an House in it which will keep a Man dry in a Shower of Rain. In the Church we saw some old Monuments of the *Douglasses*, with two Hearts wrapped up in Lead, which it seems were of two of that Family that died in *France*, and were sent over hither.

August the 24th, We rode to *Dumfreis*, or (as they spelled it) *Drumfresfe*, 28 Miles, and in the Way saw Lead Mines, at a Place called

called the *Lead-Hills*, which will in time, it is likely, increase to a good considerable Town. We also passed over much hilly Ground; the highest Place was called *Anderkin-Hill*, upon the Top whereof the Air was sharp and piercing, when in the Level it was warm and gentle; neither yet were we on the highest *Apex* of it, by the Ascent of near Half a Mile, as we guessed. This Hill we judged to be higher than any we had been upon in *England* or *Wales*, *Snowdon* itself not excepted. This is a dangerous Passage in Winter time, the Way being narrow and slippery, and a great Precipice on the one Hand, besides the Descent steep, so that we led our Horses down about a Mile. At *Dumfreis* they have two Ministers, one a young Man named *Campbell*, related (as we were told) to the M. of *Argyle*, the other

other an elder Man, by Name *Henderson*, who has married his Daughter to the younger. *Campbell* prayed for the Preservation of their Church Government and Discipline, and spake openly against Prelacy and its Adjuncts and Consequences. Here, as also at *Dunbar*, and other Places, we observed the Manner of their Burials, which is this; when any one dies, the Sexton or Bell-Man goeth about the Streets, with a small Bell in his Hand, which he tinkleth all along as he goeth, and now and then he makes a Stand, and proclaims who is dead, and invites the People to come to the Funeral at such an Hour. The People and Minister many times accompany the Corpse to the Grave at the Time appointed, with the Bell before them, where there is nothing said, but only the Corpse laid in. The Minister there, in the public
7 Worship,

Worship, doth not shift Places out of the Desk into the Pulpit, as in *England*, but at his first coming in, ascends the Pulpit. They commonly begin their Worship with a Psalm before the Minister comes in, who, after the Psalm is finished, prayeth, and then reads and expounds in some Places, in some not; then another Psalm is sung, and after that their Minister prays again, and preacheth as in *England*. Before Sermon, commonly, the Officers of the Town stand at the Church-Yard-Gate, with a join'd Stool and a Dish, to gather the Alms of all that come to Church. The People here frequent their Churches much better than in *England*, and have their Ministers in more Esteem and Veneration. They seem to perform their Devotions with much Alacrity. There are few or no Sectaries or Opinionists among them;

them; they are much addicted to their Church Government, excepting the Gentry, who love Liberty, and care not to be so strictly tied down. The Country abounds with poor People and Beggars. Their Money they reckon after the *French* Manner. A *Bodel* (which is the sixth Part of our Penny) they call *Tway-Pennies*, that is with them Two-pence; so that, upon this Ground, 12 Pennies, or a Shilling *Scotch* (that is, six Bodels) is a Penny Sterling. The *Scotch* Piece mark'd with XX, which we are wont to call a *Scotch* Two-pence, is Twenty-pence *Scotch*, that is, Two-pence Sterling, wanting two Bodels, or four Pennies *Scotch*; the Piece with XL is Four-pence Sterling—4 Bodels; and so one Shilling Sterling is 12 Shillings *Scotch*. Thirteen Pence Half-penny *English*, a Mark *Scotch*. One Pound *Scotch*, 20d.
P Sterling.

Sterling. One *Bodel* they call *Tway-Pennies* (as above), 2 *Bodels* a *Plack*, 3 *Bodels* a *Baabee*, 4 *Bodels* 8 *Pennies*, 6 *Bodels* 1 *Shilling* Scotch.

August the 26th, We had farewell to *Scotland*, and, after a Journey of 24 Miles, arrived at *Carlisle*, fording three Rivers by the Way, one at *Annan*, which, by reason of our Ignorance, might have been a dangerous Pass to us. Our Host here told us that he used to be troubled with the Stone, and the best Remedy that he ever had Experience of for to give him Ease, was the Decoction of *Geranium Robertianum*. *Carlisle* is low-built, scarce one fair House in it, poor, yet well walled about, and of good Strength. It hath a large Market-place, a Castle, a Citadel built of Brick, but now ruinous, a Guard-House in the Market-place, lately

lately built of Stone, and a Cathedral Church, the Body whereof hath been, since the civil Wars, pulled down, the Choir still standing. It is but a mean Building, and poorly endowed; the Top hath been indifferently well gilded, and the Seats round the Choir canopied with handsome carved Work of Wainscot. In a little Chapel they shewed us a Tomb, which they said was St. Augustine's. They have preserved there two Elephants Teeth fastened in a Bone like a Scalp, which they call the Horns of the Altar. On the Backsides of the Seats of the Choir have been painted divers Stories, with Verses in old *English*, but now almost defaced. There is very good Ground about this Town, and such as for 20 Years together will bear Corn, without lying fallow. We ought here to remember Mr. *Egland-*

by, who was very civil to us; there we saw the antient Inscription which *Camden* mentions. From *Carlisle* through *Pereth*, we went to *Shap* in *Westmorland*, where we saw the Ruins of the Abbey, very pleasantly situate in a private Valley. The Well called by the Vulgar the *Anny-Well*, that is reported to ebb and flow; upon the Place some told us they had observed it so to do; others, that though they had observed it daily for some Years, yet they never could find any such Thing, and therefore, if ever it did, yet certainly of lately Years it hath ceased to ebb and flow. We found several rare Plants growing about *Shap* in Plenty, as *Ranunculus globosus*, *Paralysis fl. rubro*, *Carduus mollis Helenij foliis* P. B. Sedi quædam species flore luteo, *Salix folio laureo* P. B. *Trachelium majus Belgarum*, *Geranij Batrachoidis*

dis altera species, Muscus clavatus abietiformis, and many others.

August the 30th, We crossed the Country to the Spittle on Stanmore. By the Way we saw at Appleby the Castle belonging to the Countess of Pembroke, who hath put it in good Repair, as also the Church and Bridge. This Lady hath a vast Estate, which she spends partly in House-keeping and charitable Uses, and partly in repairing and furnishing her Castles, of which she hath 6 or 7 in this Country and Yorkshire, now in very good Repair, and well furnished, viz. Appleby, Browham, Burgh, Pendragon, (about which she hath not a Foot of Land) and Skipton, &c.

ITINERARY III.

THURSDAY May 8th, 1662,
 We (a) set out for St. Neots upon Ascension-day, where was held a great Fair for Sheep; thence through *Swanford* to *Swinsted*, a small Village. Beyond *Swinsted* on the Left Hand, in the Way to *Northampton*, we saw an House belonging to the Earl of *Bullingbroke*, at a Village called *Melborn*. We next passed through a very dirty Town, the Name of which we did not enquire, and so leaving *Yielding* a little on the Right Hand, we came to *Higham*, passing by several little Towns to *Northampton*. Upon the Walls there I saw growing *Saxifraga alba*, *Hypericum vulg.* *Calamintha vulg.* &

-(a) Mr. Willughby accompanied Mr. Ray in this Journey.

Cotyledon

Cotyledon vulg. From *Northampton* we rode through *Hill-Morton* and *Rugby* to *Coventry*, thence to *Coleshill*, and then to *Middleton*. On a Bank, by the Way Side, between *Coventry* and *Coleshill*, we found a kind of Vetch, with a bright Purple Flower. We passed by Sir *Clement Fisher's* House, where is a Bridge over the Highway.

Monday May the 12th, We rode out to *Sutton Cofeld*, where is a Close called the Park Close, belonging to the Free-School. Here we found *Lunaria minor* in great Plenty.

Tuesday May the 13th, From *Middleton* to *Stafford*, we passed on by the *Trent* Side, where we observed great Plenty of *Fumaria alba claviculata*; all along by the Way Side we saw that kind of *Fern* which I

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first took Notice of in *Suffex*. At *Stafford* Town there is a fair Market-place, and a good Sessions-House builded of Free-Stone, over the Market Cross. Here is a Hospital for twelve Widows (a very pretty Place) built by *Martin Nowell* in 1657. My Lord *Aston* hath a good Monument in the Church at *Stafford*, of his Grandfather: He hath a good House called *Tixball*, about three Miles from *Stafford*. The great Church called *St. Mary's* was formerly Collegiate, and had three Prebends. The Town is governed by a Mayor, 11 Aldermen, and 10 Common-Council Men. At *Riddesty* is a new erected Market. Mr. *Weston* hath a pretty House here.

Wednesday May the 14th, We passed on to *Nantwyck*, 21 Miles. We diverted out of our Way to see the

the *Puits*, which we judged to be a Sort of *Lari*, in a Meer at *Norbury* belonging to Col. *Skrimsbaw*. They build altogether in an Islet in the Middle of a Pool. Each Hen layeth 3 or 4 Eggs (of a dirty Blue or Sea-Green spotted with Black) at the driving every Year, they take commonly above an Hundred Dozen young, which they sell at five Shillings the Dozen. The Colour of the *Puit* is near that of a *Sea-mew*, i. e. White and somewhat flecked, only the Head is perfectly Black; about the Bigness of a Teal or a Widgeon. They come to this Meer the Beginning of *March*, and are all gone by the latter End of *July*, or before. They usually drive them about the 6th or 8th of *June*, sooner or later. They have sometimes divided, and Part removed to another Meer not far off, but this not often.

At

At *Derrington*, 3 Miles from *Nantwych*, Sir *Henry Delves* has a very fair House, and a large Pool or Meer near it by the Road Side; and we saw, among others, these Gentlemen's Houses by the Way, *viz.* Sir *Thomas Whitgrave's* at *Whitgrave*, Mr. *Cope's* at *Ranton Priory*, Mr. *Holland's* at *Adbaston*. At *Nantwych* there is a fair Church; the Town is governed by ten Constables; they have a Custom like that in *Scotland*; when any one is dead, a Bellman goeth about the Streets the Morning that the dead Person is to be buried, tinkling a Bell he has in his Hand, and now and then makes a Stand, and invites the People to come to the Funeral at such an Hour. From *Nantwych* to *West-Chester*, by *Beeston Castle*, 20 Miles. By the Way, at *Bickly*, we saw a Pool in my Lord *Cholmondeley's* Ground, which was made

made by the falling in of the Earth about the Year 1657: *Cujus historiam descripsit, D. F. W. (b).* Beeston Castle was strongly situate upon an high Rock, but is now quite fallen down and ruined. We could not find any of those Plants, which, in *Phytol. Brit.* are mentioned to grow wild there, and suppose none such are to be found. By the Way we observed Sir Thomas Wilbrabam's House at Woodbay, and Lord Cholmondeley's at Cholmondeley, a very stately Timber Building. At Chester we were shewn a fair Altar with an Inscription, which we copied, and which was dug up in the Cellar of the House at which we put up. The Cathedral Church is remarkable for nothing except a preaching Place or

(b) Dominus Franciscus Willughby, *ut videtur.*

Church in the South Wing, and the Bishop's Seat (in the Choir) of Stone. It is built of a Red washy Stone, which suffers much by the Weather. In the Consistory lies the Body of the Earl of *Derby*, his Grandfather wrapped up in Lead and not interred. Bishop *Bridgeman* hath a Vault for a burying Place, in one of the Isles of the Choir. By the Bridge-gate there is a fair square Water-Tower lately built, which serves a great Part of the City with Water. The Water is sucked up by Suckers, like those of Syringes, and stopped from running out again by Valves, and forced up into Pipes by the same Syringe-stopples as the Water is forced out of a Syringe, and Valves to stop it from descending. At the Top of the Cistern there is a Pipe to let the Air out of the Pipes.

Friday

Friday May the 16th, From Chester to Wrexham, and thence to the Molde, 16 Miles; by the Way we saw a fair House of Sir John Trevor's at Gresford, and an House of Mr. Wynne's called the Tower. Wrexham is a very fair Market-Town, the Church Steeple exceeding handsome, adorned with Statues cut in Stone; a great Number of poor People about the Town, especially old Women. There is at the Molde a large fair Church of very good Free-Stone; therein is a Stone Pedestal and a Canopy, where, they say, stood a living or quick Image. It is the Custom here, as in other Places in Wales, to strew Green Herbs, as Rushes, Flags, Branches of Box and Flowers, on the Graves of dead Persons for one Year, and then to cover them with a Stone. Near the Molde, in the Way to Kilken, Baron Edwards

wards (c) has an House. At *Kilken* the River *Allen* runs under Ground for a little Space. The Channel is full of Stones, which I supposed lay loose to some Depth without Earth, and the Water runs under them. There is also a Well which (they say) ebbs and flows in the Winter Time; but there was no such Thing to be observed at the Time of our being here.

Saturday May the 17th, We went on to *Holywell*, and so to *Denbigh*; where we staid *Sunday May the 18th*. This is one of the greatest Towns of *North Wales*. We observed the *sweet Moss*, and the Stones spotted with Red at *Holywell*. There hath been a large and strong Castle at *Denbigh*, but now demolished.

(c) "Baron of the Exchequer of *Chester*."

The

The Town is governed by 2 Aldermen and 2 Bailiffs, the Aldermen chief. There is a good Market-House, and above it a Shire-Hall, supported with Stone Pillars. In our Journey from the *Molde*, we passed by the Lady *Mostyn's* House at *Kilken*, Mr. *John Mostyn's* House at *Potuary*, Sir *John Salisbury's* House and Park at *Lleweny*, near *Denbigh*. We saw also an House of Mr. *Wynne's*, and the Bishop of *St. Asaph's* at *Llandurnog*. On a bushy Hill near *Denbigh*, on the North-West Side of the Town, I found *Androsæmum Campoclarense* Col. *Lycopsis* q. an elegant Plant; besides a great many of such as I had elsewhere found, viz. *Tilia* fœm. *Androsæmum* vulg. *Cardamine pumila bellidis* fol. *Pentaphyllum tormentillæ* facie.

Monday

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Monday May the 19th, We this Day passed two Villages, Henllan and Llanywitb, and so through Bettus to Conway, and from thence to Bangor. On Penmaen-maur, I found Lunaria minor, and a sort of Sedum minus.

Tuesday May the 20th, From Bangor we rode to Carnethllewelyn, which signifies Llewelyn's Bones, a very high Hill. We had not time enough to search the Rocks, and so found no rare Plants there, only Cotyledon birsuta, which grows plentifully also upon Snowdon Hill. Bangor is a small mean Town, the Cathedral very indifferent, not comparable to some of our good Parish Churches in England.

We proceeded from Bangor to Beaumaris. At Penmaen, three or
2 four

four Miles distant from *Beaumaris*, towards *Prestholm*, Mill-Stones are digged up. An Airy of Falcons, at a Place we did not set down the Name of near *Holyhead*. The Teeth of the Sheep are died Yellow, that feed on an Hill called *Trysillum*, where some have conjectured there are Gold-mines. At *Llandwyn* are the Ruins of a Church, which seems to have been a very fair one. From *Penmaen-maur* to *Prestholm* is a large paved Causeway, visible at low Water, and the Ruins of an old Castle still to be seen, at a very low Spring-tide Ebb, between the two *Penmaens*. There are *Firr-Trees* digged up in the Marshes here, and in *Carnarvonshire*. At a Place called the Friery, about Half a Mile from *Beaumaris*, was found a Stone Coffin of one of King *John's* Daughters, where-

Q of

of they now make an Hogs-trough
(d).

Thursday May the 22d, We went over to *Prestholm* Island, in which we took Notice of the Ruins of St. *Sirian's* Chapel; the Tower is yet standing. There groweth *Hippose-linum* in great Plenty. *Cochlearia* vulg. *Critbnum*, *Beta marina*, and a small Sort of *Geranium*, which I had before observed in the *Isle of Man*. In the Island (*Prestholm*) are bred several Sorts of Birds, two Sorts of *Sea-Gulls*, *Cormorants*, *Puffins*, so called there, which I take to be *Anas Arctica Clusij*, *Razor-Bills*, and *Guillems*, *Scrays* two Sorts, which are a kind of *Gull*.

(d) It is commonly said, that the Stone Coffin, in which was laid the Corpse of *Richard III.* after the Battle of *Bosworth-Field*, was afterwards used at an Inn in *Leicester*, as a Watering-trough.

Saturday

Saturday May the 24th, We rode to *Llandwyn*, and thence to *Carnarvon*. At *Llandwyn* we found *Crithmum chrysanthemum*, & *vulgare*, *Hyacinthus autumnalis minor*, *Limonium vulg.* and a kind of *Polypodium*. On the Beaches near *Abermenny-Ferry* in the Isle, *Gnaphalium maritimum*, and a kind of *Leucoium*, both elegant Plants. We found on the Sea-Shores, near *Llandwyn*, a pretty Shell covered with Prickles or Bristles (*e*), which the *Welch* call *Mermaids Heads*; abundance of them are thrown up there, all along the Sands towards the *fretum*. Upon the Coasts of *Llandwyn* are found a pretty small kind of *Conchæ venereæ striatæ*: on all the Shores hereabout are cast up elegant small *Cochleæ* neatly coloured. We lodged at *Carnarvon Saturday*

(*e*) Now well known to be the *Echinus*.

and *Sunday, May* the 24th and 25th. Here also I found that Species of *Geranium* mentioned in *Prestholm*. Near *Carnarvon* remain still some Ruins of an old Town, which the *Welch* call *Caer-Segon*, i. e. *Segontium* of the Ancients: There is a little Chapel, with a Well close by it, dedicated both to St. *Elyn*, as is also the River fast by, called the Saint's River; these are about a Quarter of a Mile South of the Town. There is a Chapel of Ease in *Carnarvon*, close to the Town Wall; the Parish Church is Half a Mile out of Town, whereabout old *Segontium* stood. We were told a Legend of one St. *Byno*, who lived at *Clenog-vaur*, and was wont to foot it four Miles in the Night to *Llaynbayrne*, and there, on a Stone in the midst of a River, to say his Prayers; whereon they shew you still the Prints of his

2

Knees:

Knees: His Man, out of Curiosity, followed him once to the Place, to see and observe what he did. The Saint coming from his Prayers, and espying a Man, not knowing who it was, prayed, that if he came with a good Intent, he might receive the Good he came for, and might suffer no Damage; but if he had any ill Design, that some Example might be shewn upon him; whereupon presently there came forth wild Beasts, and tore him in Pieces. Afterwards, the Saint perceiving it was his own Servant, was very sorry, gathering up his Bones, and praying, he set Bone to Bone, and Limb to Limb, and the Man became whole again, only the Part of the Bone under the Eye-brow was wanting; the Saint, to supply that Defect, applied the Iron of his Pike-staff to the Place, and thence that Village was, called *Llan-*

vilhayrne: But for a Punishment to his Man (after he had given him *Llanvil-bayrne*) he prayed (and obtained his Prayer) that *Clenogvaur Bell* might be heard as far as *Llanvil-bayrne Church-Yard*, but upon stepping into the Church it was to be heard no longer; this the People hereabout assert with much Confidence, upon their own Experience, to be true. This Saint was a *South-Wales* Man, and when he died, the *South-Wales* Men contended with the *Clenogvaur* Men for his Body, and continued the Contention till Night; next Morning there were two Biers and two Coffins there, and so the *South-Wales* Men carried one away, and the *Clenogvaur* Men the other.

Monday May the 26th, We went to *Llanberis*, and so to *Betbkellert*. By the Way Side, near the upper
End

End of *Llanberis* Pool, we saw growing wild, *Papaver erraticum luteum Cambro-britannicum*, and near the Stone Tower there a Species of *Orchis Palmata*, with an odorate Flower like to *Monorchis*. We passed a very bad Way, by two great Pools of Water. The *Welch* have a Dish which they call *Llumery*, made of Oatmeal, almost after the same Manner of the *Amylum* of the Ancients.

In the Lakes hereabout, viz. at *Llanberis*, *Bettus*, *Festiniog*, there is a Fish taken called *Torgoch*, blackish upon the Back, Red under the Belly (*unde Nomen*), of which they tell some fabulous Stories, as that three Sons of the Church brought them from *Rome*, and put them into three Lakes, to wit, *Llanberis*, *Llyn-number* and *Travennyn*, into each two. They are taken in each Lake,

but at one time of the Year, and at a different time in the several Lakes. At *Llanberis* they say, that they are there taken only in the Night, and that when it is not Moon-shine. An old Man at *Betbkellert* told me, that *Meum* grows upon *Carnedwen*, a Mountain between *Bala* and *Dolgelle*.

Tuesday May the 27th, We set out for *Snowdon*, and so to *Clenog*, about 12 Miles. On *Snowdon-Hill* we found that Species of *Adiantum floridum*, which we had before observed in *Westmorland*. At *Clenog* we saw *St. Bayno's Tomb*, where-upon (they say) if a sick Person be laid for three Weeks, upon every *Friday*, after the third *Friday* he will suddenly either recover or die. Here is also a Well dedicated to *St. Bayno*.

Wednesday

Wednesday May the 28th, We travelled from *Glenog* to *Aberdaren*, 18 Miles. By the Way, we saw the Rock at *Madryn*, where Crystal Stones are found. At *Aberdaren*, on the Shores, grows the before-mentioned *Leucoium marinum*.

Thursday May the 29th, From *Aberdaren* we ferried over to the Isle of *Bardsey*, a pretty little Spot, rented for 50*l.* per *Annum*. There build the *Prestholm Puffin*, *Sea-pies*, and some other Birds; and there are still to be seen the Ruins of an old Church; three more they told us of. Near these Ruins is an Heap of *dead Men's Skulls*, and other Bones of such *Votaries*, as, for the Sanctity of the Place, had been buried there. We found a kind of *Hyacinthus stellatus vernus* growing there in great Plenty; the same we conjecture grew at *Llandwyn*:

Llandwyn: We found also that Species of *Geranium* which we had seen in the *Isle of Man*, and in *Prestholm*; likewise the new *Polypodium* on the Rocks, which I find called by *Lobel*, *Chamaefilix marina Anglicana*.

Friday May the 30th, We passed over from *Aberdaren* to *Pulbely*, and by the Way saw a Well which the *Welch* call *Funnan Deuw*, i. e. GOD'S Well. They fancy it works strange Cures. We did not observe any notable Taste in it, neither would it tincture Silver, as we were told it would.

They have a Tradition in *Wales* about the *Puffins*, that they cannot fly if they be out of the Sight of the Sea-Water; their Wings are very small, and yet they fly swiftly, but seldom very high. Here we saw the
Sea-

Sea-Swallow, which is of an Ash Colour on the Back, White under the Belly, hath a Black Head and a forked Tail (*unde Nomen*). The Bill like that of the *Larus cinereus*. We saw another *Larus*, more Black upon the Back, and that had Yellow Legs.

Saturday May the 31st, We rode to *Harlech*, passing two Fords, 16 Miles. Here are yet standing the Walls of an antient and strong Castle, built on an high Rock close by the Sands; also a great Level, which they call the Marsh, which has doubtless been formerly gained from the Sea. Hereupon grows in Plenty, *Juncus acutus maritimus sive capitulis Sorgbi* C. B. of which I suspect *Phyt. Brit.* makes three Plants. This is a miserable poor Town, yet is governed by a Mayor, two Bailiffs, and

and a Recorder. Near *Pen-morrhun* Sir *John Owen* has an House.

Monday June the 2d, We rode to *Aberdovy*, 17 Miles, over Marsh Land and Sand. At *Aberdovy* lives the Lady *Lloyd*, who informed me that *Rubia tinctorum* was found growing wild on the Rocks there by Dr. *Bowles*; but we had no time to search for it. I found a little Sort of *Rush-Grass* upon the Rock.

Tuesday June the 3d, We travelled over the Sands, and so came round about by *Talabont*, to the Silver Mills, and viewed the Mint at *Talabont*, and took as exact a Description as we could of the Silver Works.

Wednesday June the 4th, We rode to the Top of *Plimllimmon-Hill*, and thence to *Llanbadern*, 17 Miles.

Thursday

Thursday June the 5th, We went on to *Cardigan*, where is a Priory near the Church. By the Way we saw the Place where stood a Castle called *Christmas Castle*, because it was begun to be built in the *Christmas Holy-Days*. On a Common near *Blaynport* lie a great many large Stones; among the rest, one standing perpendicularly on one End in the Ground, and another large one leaning upon it, and two others, one on each Side the leaning Stone; these Stones they call King *Arthur's Quoits*: Under the leaning Stone is a Stone with little Grooves upon it. These seem to have been some ancient Monument of the *Britons (f)* or *Saxons*, viz. a Trophy for some Victory, or Stones reared upon some

(f) Perhaps of the *Druids*. See the learned Mr. *Berlase's* Antiquities of *Cornwall*.

great Person's Corpse. The like Stones we saw upon St. *David's Head*; and they told us, that, in other Places of the Mountains, the like were to be seen. We also passed by thereabout a Bank, over which they throw the wooden Ball that get the Victory over other of the Men of the high and low Country of *Cardigan*. This Contention and Sport for the *wooden Ball* is yearly on the *Monday in Whitsun-Week*. We were told of a great Stone in a plowed Field which hath this antient Inscription, *Corbulensis hic jacet Ordous*; but this we saw not. Mr. *Lewis* hath a pretty House at *Cardigan*. Mr. *Barry* is Owner of *Cardigan* Island. From *Cardigan*, we rode to a poor Village called *Fishgard*, where we were put to it for a Lodging. Thence we proceeded to St. *David's*, where we viewed an old Cathedral,

Cathedral, therein divers ancient Monuments, *viz. that* of the *Earl of Richmond*, Father of King *Henry VII.* in the Choir. *Owen Tudor's*, and another of the *Tudor's*, Bishop *Vaughan's*, Bishop *Anselme's*, &c. Behind the Choir, a handsome Chapel of Bishop *Vaughan's*, where sitting, he had Windows so contrived into another Chapel behind, called *St. Mary's Chapel*, that he might see five Masses said together, at five several Altars. The Steeple is taken into the Choir, and the Bell-Ropes hang down into it; and of the Wings of the Church are made Chapels. The *Welch* have a Proverb, that *it is as good to go to St. David's twice, as to Rome once.* There are also, in this Church, the Tomb of *St. David*, and one *Wogan*, a Gentleman. This Town is now a poor Place; not far hence, on the Sands, stood
old

Meneu, whence the Bishop is stiled *Menevensis*. At *St. David's Head*, among and upon the Rocks, are found *Crystals* or *Bastard Diamonds*, like to those found at *Madryn* and other Places. Here lies a Stone called the (g) *sbaking Stone*, which they report formerly a Man might have moved with his Hand, (it is so poised on its Center) though many Men cannot remove it from its Place. I saw no great Wonder in it. It is a rude Stone, naturally made like to a *Meta*, and standing upon its Vertex. There I found the *Hyacinthus* mentioned before in *Bardsey*, besides the Plant which I call *Polypodium marinum*, growing on many Rocks by the Sea-side, which it is likely the Herbarists may call *Filix marina*, or *Adiantum*, &c. Leaving *St. Da-*

(g) See Mr. *Borlase's* Antiquities of *Cornwall*.

vid's,

vid's, we rode that Night to *Haverford West*, where we lay on *Sunday*. This is the largest and best Town that I have yet seen in *Wales*; where was an old Castle, now demolished. In the Way hither we observed a Tower called *Roche Castle*, which may be seen at a great Distance. We passed by *Ramsay Island*, and the *Bishop and his Clerks*, Rocks in the Sea near *St. David's*. *Ramsay Island* is so called, from *Ramsons* plentifully growing there. Here breed several Species of Birds, some the same as in *Prestholm*. We saw, at a Distance, *Scalme Isle*, where wild Thyme is said to grow, but we went not thither. At *Haverford*, near the River, are the Ruins of an old religious House, which they call the Priory; within less than a Mile of the Town, is a fair House of Sir *John Stepney's*. In this Town are

R three

three Churches. South of the Town, by a little River (which is kept up with Banks to drive a Mill) grows in great Plenty, *Cyperus*, &c. *q.* This is a Town and County, governed by a Mayor, Alderman, Sheriff, &c. and elects a Burgefs for the Parliament. In a Close near the Castle, I found *Trifolium cochleatum folio cordato maculato*. From *Haverford* we rode to *Pembroke*, where we saw the Ruins of the Castle: In it, by the River's Side, a large round Vault in the Rock, which sounds much; it seems to be natural. Thence the same Day to *St. Gobin's Well*, by the Sea Side, where, under the Cliff, stands a little Chapel, sacred to that Saint, and a little below it a Well, famous for the Cure of all Diseases. There is, from the Top of the Cliff to the Chapel, a Descent of 52 Steps. We proceeded to *Tenby*, a Place strongly situate,

situate, and well walled. It hath a very pretty safe Harbour, made by an artificial Pier of Stone. Great Variety of Fish taken near to this Town, viz. Cod, Ling, Mackrel, Thornback, Soles, Place, Turbot, Searbut, Holybut, Conger, Hake, Dog or Hound-Fish, Horn-Fish or Sea-Needles, Haddocks, Gurnards Red and White, Herrings, Sprats, Mullet, and Basse, Suins, Sharks, Dunbonds, Whiting, Bream, Flukes Grey and White, Cowes, Bleaks or Pollacks, Ballon, Smelts, Lobsters, Crabs, Porpefs, Grampus, Siels, Hews, Bull-Heads, Butter-Fish, Dots, Bret or Brit, Bowmen, Oysters, Shrimps, Limpings, smooth and rough Cockles, Flemings, White and Black Hay-Fish, Cuttle-Fish. We passed over to Caldey Isle, of which Mr. Williams is Owner, and were civilly received there. In the Island

are three Chapels, one at the Abbey or Priory, and two more. In a little Island, between that and the Main Land, great Plenty of Fowl, the same that breed in *Prestholm*. In one Part of this Island, the *Puits* and *Gulls*, and *Sea-Swallows* Nests lie so thick, that a Man can scarce walk but he must needs set his Foot upon them. On the Rocks thereabout groweth the *Malva arborea marina nostras* in great Plenty, also *Critbnum chrysanthemum*, *Limonium vulgare*, *Hyacinthus stellaris vernus pumilus*, *Filix marina*, &c. and a kind of *Tithymalus*, *q. an Tith. marinus vulgaris?* This Island hath in it a small Chapel, consecrated to St. *Margaret*, from whom also the Island is denominated. On the Sand there are found those small *Conchæ vene-reæ striatæ*, of which the Country People make themselves Hat-bands.

The

The *Sea-Swallows* they there call *Spurs*, and the *Razor-bills* are called *Elegugs*, about *Tenby* and *St. Covins*. This Name *Elegug* some attribute to the *Puffin*, and some to the *Guillem*; indeed they know not themselves what they mean by this Name. From *Tenby* we rode to *Kidwelly*, through *Laughbern*, where we forded a River. There are standing the Walls of a fair Castle, belonging to Sir *William Russell*. After travelling on two Miles farther, we saw them *burning Cockle-shells*, thereof *to make Lime*. The manner thus. They make an Hole in the Ground, therein they put Furze, upon that Wood, upon the Wood small Stone Coal, and then a Layer of Cockle-shells, and so Shells and Coals, S. S. S. (*b*) and

(*b*) *Stratum super Stratum ut videtur.*

then put Fire to them; these burnt, make excellent Lime. Here are the Ruins of an old Castle belonging to the Lord *Annesley*. In this Country they dig two Sorts of Coals, the one they call Stone Coal, not fit for Smiths, the other Ring Coal, which is fit for their Use. At *Tenby* they told us of a Rock, which was lately anew discovered, six or seven Leagues into the Sea, remote from thence, whither of old the Towns-Men of *Tenby* were wont to repair for Fishing, which did then much enrich the Town, where there is excellent Fishing. This Rock, at low Water, lies, in some Places, not above 7 or 8 Fathoms under Water, it is supposed to be larger than *Caldey Island*; it lies in the Center of a Triangle, whose Angles are *Wormshead Point*, *Caldey Island*, and *Lundy*.

Near

Near *Tenby* Castle is a little Island, which hath a Chapel upon it dedicated to St. *Catharine*; it is ascended by Stone Stairs cut out of the Rock.

There is a Castle at *Kidwelly*; the Town is in a ruinous Condition. On the sandy Meadows, near the Town, I observed fix Sorts of *Rusbes*, among which that of *Harlech*, and *Juncus acutus maritimus*. Near *Aberavon*, on the sandy Meadows by the Sea-Side, I saw growing, *Conyza helenitis foliis laciniatis*. A Bird breeds there supposed to be the *Hamantopus magnitudine inter vanellum & gallinaginem minorem media*, of a dark Grey on the Head and Back, a light Grey on the Breast and under the Belly; the 5 or 6 first Feathers of the Wing above of a dark or fuscous Colour, near Black, underneath more light or dunnish, the rest of the Fea-

thers party-coloured, the Tops White, the Bottom dark. The Tail and Feathers near it waved transversely with Black and White Lines, like the Feathers of some Turkeys, as likewise are the Tips of some of the Feathers of the Wing above the *Remiges*. The Feathers upon the Top of the Back, between the Shoulders and the Tail, are some of them almost White, which, when the Bird flies, represent a Triangle of White. The Bill of this Bird is in Figure like a Snipe's, but not so long, *pro ratione*, by a great deal, of a dark Red at the Base, Black toward the End; the Legs long and Red, the *Ungues* Black; it hath the *Posticus*; these she stretches backward in flying, which make amends for the Shortness of the Tail; it makes a piping Noise.

Friday

Friday June the 13th, We proceeded on to *Landaffe*; by the Way we saw a stone lying near *Margam*, near Half a Mile off, in the Way to *Newton*, with this Inscription, P V M P E I V S C A R A N T O R I V S; whether or no there had been another Line of Letters was uncertain. At *Newton* we saw the Well called *St. John's Well*, which ebbs and flows (as the People generally there affirm) quite contrary to the Sea (*i*); but we found that it ebbed as the Sea ebbed, and do believe that it constantly does so. The Water soaks through the Sand (as I suppose) which lies in great Plenty between the Sea and the Well. A Story passes concerning *Salmons* in the River *Aberavon*, that come up on *Christmas-*

(i) " See in *Speed's Description of the Summer-Islands* parallel Stories."

Day,

Day, and may be handled, and then taken out at Pleasure, and this is attested by all the Country. *Credat qui cupit.* The Church of *Landaffe* is indifferently fair, but wants the Cross-building. You descend into it by Steps; in it are divers Monuments of the *Matthews*, and some *Bishops*: on the Bishop's Seat is the Picture of the *Virgin Mary*, supported by Virgins, and a Bishop praying, *Virgo scandens sis marshallus cœlum pendens.*

Saturday June the 14th, We rode to *Caerwent*, an antient Town, called of old *Venta Silurum*; a great Part of the old Walls are still standing, and the Track of the rest perfectly discoverable. It hath been four-square. Here are digged up *Medals* and *Roman Pavements*. Here we met with an old Gentleman (by
5 Name

Name *More*) who hath a fair House at *Creek*. He told us of the *Salmons* in *Uske* and *Wye*, that are in Season all the Year round; for when they are out of Season in one River, they are in Season in another. Coals are dug up on both Sides of the two Rivers just mentioned, but not between them. We were told of an old Man at *Hereford*, that eats neither Fish, Flesh (excepting the Skin of a roasted Pig) Butter, Cheese, or Milk, nor ever did; his Name *Rod*. Near *Creek*, in a Bushet or Wood on an Hill, not far from the Way-side, westward, grows *Vicia maxima sylvatica* fortè & *Erythrodanum*, besides many other common Plants. The Bishop of *Landaffe*'s Palace is at *Matherne*. There are many Castles in *Glamorganshire* and *Monmouthshire*. One at *Cowbridge*, which is a pretty walled Town; one
at

at *Cardiffe*, a large handsome Town; one near *Caerwent*, called *Calecut Castle*, belonging to the King; another at *Caerlion*. We went from *Creek* to *Chepstow*, and from thence to *Tintern* Abbey, where we saw the *Wire-Mills*, and rode that Night to *Gloucester*. By the Way, near *Tintern*, I found *Herba Paris*, and a kind of *Driopteris*, *q. an Driopt. Tragi?* At *Gloucester* we saw the College. In the Cathedral are twelve little Chapels. The Pillars in the Body of the Church are great and bulky, the Steeple Part of the Choir, into which the Bell-Ropes hang down. Of the Wings of the Church are made Chapels. We saw here many antient Monuments. *Robert de Courtois*, in the midst of the Choir in Wood. *Lucius*, the first Christian King, lies as it were on a Shelf. *Edward II.* a *Saxon* King, that
either

either founded or was a great Benefactor to this Church; also a fair Monument of Sir *Humphrey Bobun*; another of Mr. *Abraham Blackleech*, who had been lately a great Benefactor to this Cathedral; likewise a Monument of Major-General *Crawford*, a *Scotchman*, slain at the Walls of *Hereford*, fighting for the Parliament, and divers others. We exactly measured and surveyed the Whispering-Place, and took Notice of the Cloister, which is very large and handsome. We rode out to *Lassington*, where we found many of the *Star-Stones*. From *Gloucester* we went to *Sodbury*, and from thence to *Alderly*, where we found great Plenty of the *Cockle* and *Scallop-Stones*, but no *Cornua Ammonis*. At *Alderly* Judge *Hales* has an House.

Thursday

Thursday June the 19th, We got to Bristol, where we saw the Cathedral. In it are a few antient Monuments, one of Sir John Newton, who took the King of Morocco Prisoner: Here are also the Tombs of several religious Knights, and of some Bishops; one, of the first Bishop of this Church, who hath his Mitre under his Head like a Pillow, and his Ribs appear, that is, the Bishop's Effigies is cut in Stone like a Skeleton, or a Body extremely emaciated. There is also the Tomb of one Vaughan, a Knight. We took Notice of the Bowling-Green, and the Plain about it by the River Side. We also saw Ratcliff Church, built by one Cannings. It is in the Form of a Cathedral, arched with Stone, well gilded on the Roof. In the Church-Yard is a fair Stone Cross, whereat are preached four Sermons every Year, to wit, on Good-

Good-Friday, Easter Sunday, Monday, and Tuesday. On St. Vincent's Rock we found several Plants, more than we had formerly taken Notice of, viz. *Androsæmum Campoclarense* Col. *Ferrum equinum* German. *siliquis in summitate* C. B. *Acinos Anglicum* Clus. *Sedum medium*, *Filicis alia nova Species*, &c. There is a Walk in Bristol called the Tolfey, where are several Brass Posts or Pillars given by several Benefactors, serving only for Ornament and to lean upon.

Friday June the 20th, We left Bristol, and travelled to Bath. By the Way we saw at Cainsham, a fine new built House of Sir Thomas Bridges; also the Serpent-Stones and Star-Stones found here. At Kelweston we saw a fair House of Lady Harrington's, and about a Mile off,
at

at *Cofton*, another of her Son's. At *Bath* we took Notice of no new Thing, fave Bishop *James Montague* of *Wincheſter* his Monument in the Abbey-Church. We lodged this Night at *Paulton*, a Village 7 Miles from *Bath*, in the Way to *Wells*. In the Corn-Fields about *Camerton*, we found a kind of *Tithymalus* or *Eſula*, which we had not before ſeen; we alſo here found a kind of *Tithymalus*, reſembling, at firſt Sight, the common *Sun Spurge*, but it grows up to a great Height, the Leaves of a pale Green or Yellow like *Helioſcop.* of the Figure, well near, of Wood Spurge; the Stalk ſometimes reddiſh. We obſerved at St. *David's*, *Glouceſter*, *Ratcliffe* Church (and other Churches) behind the Choir, a large Chapel dedicated to the Virgin *Mary*, which they call the *Lady's Chapel*.

Saturday

Saturday June the 21st, We rode to *Wokey-hole*, and from thence to *Wells*, where we viewed the Church, which is a very neat one. It hath a double cross Building; behind the Choir is a large Chapel dedicated to the Virgin *Mary*, wherein they have their Service at Six in the Morning. The Front of this Church is very curiously adorned with Statues, and other carved Work in Stone; it has a pretty Chapter-House, and a large Cloister, only it wants the fourth Side. Here are two Rows of Houses, on each Side of a long Court (called *Vicars-Close*) for the Singing-Men, whom they there call *Vicars*. In the Church are the Monuments of several *Bishops*, particularly of Bishop *Lake* and Bishop *Still*, also of some *Priests* and some *Abbots*, which were transferred thither from *Glastonbury*. A large Grave-Stone of *Ina* a *Saxon*
S
King,

King, the first Founder of the Church; likewise the Monument of one *Harewell*, a King's Bastard. There are divers good Pieces of carved Work in this Church. In the Body of it, towards the West End, between two Pillars in the Wall, is carved the Head of a King, with Priests on each Side tumbling Head-long; also a Bishop with a Woman on one Side and a Child on the other; of which they tell this Story: The Abbot, who finished the Body of the Church after King *Ina's* Death, when the Workmen were building the Church, gave them a Plate out of his Pocket, which had these Pictures on it, and bade them cut them in Stone, and set them in the Church Wall. When the Abbot came and saw them finished, he wept, and being asked the Reason; he answered, When there should reign a King like
to

to that Head, and a Bishop sit, like the other, then Friars and Priests should be thrown down, and Bishops marry. Now the King's Face, they report to be exactly like to King *Henry VIII.* and the Bishop like the first married Bishop of that Diocese. Dean *Crichton* hath a fair House here, built by Doctor *Burges*. From *Wells* we rode to *Glastonbury*, where once again I visited the *Torr*, which is nothing but the Steeple of an ancient Church, now quite fallen down and gone, as appears by the East Side of the Steeple, where the Church had been broken from it, and by the Testimony of ancient People thereabout, who have seen the *Vestigia* and *Rudera* of the Walls. On the Top of the *Torr-hill*, and all along the *Ascent*, I observed great Plenty of a kind of *Orobanche*, the Stalk whereof is of a reddish Purple Colour,

lour, the Flower one undivided *Tubus*, like the Flower of the common *Orobanche*, of a faint purplish Colour, with *Striæ* or long Lines all along the Length of the Flower, of a deeper Purple. It hath some *Stamina*, and a *Stylus*, which ends in two, and sometimes in three, *Globuli*. The Root is like that of the ordinary *Orobanche*, in the lesser it more imitates a Bulbe, and hath a few Fibres or stringy Roots at the Bases or *Sedes* of it; the Root of the greater is oblong. Upon the Marsh, in the moist Places, I observed, creeping upon the Ground, a small umbelliferous Plant, the Leaf somewhat like to one sort of *Oenanthe*: The Flowers very small, and consisting of five little white pointed Leaves; the *Umbell*, for the most Part, had but two *Spokes* of Flowers, in some three, but this perhaps may be imputed to the

the Poverty of the Plant; the Seeds striate a little compressed, and but short; the Stalk hollow, the Root stringy. This is the Water Parsnip; though it may perhaps be referred to the *Oenanthe*. On the Top of the Hill, by the *Torr*, we found a kind of *Vicia*, with a long White Flower. Likewise, in the Meadows hereabout, we found in great Plenty, a kind of *Facea*, in the Leaf exactly like to the *nigra vulgaris*, in the Flower to the *Facea major segetum*. We saw *Joseph* of *Arimathea*'s Tomb and Chapel at the End of the Church, also the Abbot's Kitchen, which is yet standing, all built of Free-Stone, without any Timber in it, at the Bottom four Square, and in each Corner a Chimney, and the Top is cupola'd up with one round Arch, like a Chapter-House, and on the Top a Stone Lanthorn, to convey

away superfluous Smoke. Mr. *Stroud's* Barn, built all of Free-Stone, with Buttresses like a Chapel, deserves to be remembered. The Stump of the old *Christmas Thorn* is now quite dead and gone, but they have several inoculated Plants of it about the Town. Mr. *Pester*, a Merchant of *Bristol*, now owns the Ruins of the Abbey of *Glastonbury* (*k*).

Monday June the 23d, We went from *Glastonbury* to *Taunton*, 21 Miles, and lodged at *Wellington*. Between *Street* and *Walton* (two Villages in the Way to *Taunton*) we found (in a Close where they digged Stone) a kind of *Trefoil*, which I

(*k*) And at the Time of publishing these Papers, the Owner of the *Torr* is *Joseph Brown*, Esq; of *Skipton Mallet*. [A Gentleman who has a very curious and valuable Collection of *Pictures, Drawings, Prints, and Medals*].

conjecture

conjecture to be *Trifolium stellatum*, C. B. it hath an oblong Head of Seeds after the Flower is gone (which is of a pale Blush and Fading) not unlike, for the Figure, to the Head of *Virga pastoris*; every particular Seed-Vessel ends in five *Radij*, or Points. Beyond *Walton*, in the Way to *Taunton*, in a Close by a stony Lane, in the Hedge, *Lithosperm. minus*. In *Somersetshire* they have a Way of setting their Mows of Corn on a Frame (which they call a *Mowstead*) standing upon four Stones cut with a Shank, and upon that an Head like a *Meta*, resembling some Toad-Stools. Beyond *Ling*, and near *Taunton*, we passed by the Lord *Hawley* his House. Thereabouts, at a Place called *Orchard*, lives Sir *William Portman*, one of the greatest Heirs in *England*. Col. Sir *Francis Popham* hath the Manor of *Wellington*,

son, where there are the Ruins of a once fair House of his, which had been garrisoned in the Time of the late Wars, and then demolished. Sir *William Windham* hath a large Estate hereabout; but lives near *Watchet*.

Tuesday June the 24th, We went from *Wellington* to *St. Moulton*, thro' *Tiverton*, a large Borough Town. Near *Moulton* we saw a fair House of Mr. *Amery's*.

Wednesday June the 25th, We came to *Buckland*. We viewed *Barnstable*, a very handsome and large Town; but low built, yet the Houses are all neat, and in good Repair; the Streets well paved, so that one may walk in them in Slippers in the midst of Winter. It is governed by a Mayor and 24 Aldermen, sends two Burgeses to Parliament, hath a
good

good Trade, is rich and populous; here is a pretty Alms-House, and a long Bridge of 15 Arches. We passed also *Biddiford*, which seems to be a thriving Town, and to abound with Shipping; here is also a long Bridge of 24 Arches. Between *Westly* and *Biddiford*, all along the Hedges on both Sides the Way, grows *Erythrodanum* in great Plenty, and no doubt also in the rocky Ground all thereabout. Between *Biddiford* and *Kilkhampton*, in the Valleys, and near the Rivulets and Water-Courses among the Moors, we met with *Campanula Cymbalariae foliis*, and *Asphodelus Lancastrensis*. The River *Ex* rises not above 5 Miles distant from the North or *Severn* Sea, and runs into the South or *British* Sea, giving Denomination to many Places, viz. *Exford*, *Exmore*, *Exton*, *Exbridge*, *Exeter*, and *Exmouth*.

mouth. At *Kilkhampton*, on the Rocks, is a small Sort of *Alga*, broad and variously divided, and, as it were, curled at the Top; besides *Corallina alba* & *rubra*. Nothing more frequent hereabout, in boggy and springy Places, than *Asphodelus Lancastrensis* & *Lysimachia galericulata minor*: It hath a Flesh-coloured Flower, and the Lip thereof is spotted with small Red Spots. Here also is a small Sort of *Pinguicula*; which seems to differ specifically from the common. It hath lesser Leaves, crumpled up about the Edges, almost pellucid, having Red Veins frequently, and manifestly visible. The Flower is much smaller than that of the common *Pinguicula*, and paler, more of the Flesh-Colour (*conferantur*). The *Cotyledon palustris* Flower also grows here; the Stalks on which the Flowers grow are small and low, bearing

bearing at the Top five or six very small Flesh-coloured Flowers, consisting of five sharp-pointed Leaves; (*exam.*) *vascula seminalia, sunt ea compressa, didyma, velut Thlaspeos cujusdam.* In *Devonshire*, as well as *Cornwall*, they mend or manure their Lands with *Sea-Sand*. In the East Part of *Devon* they make the Walls of their Houses very thick, and of a Red Clay. In many of the Towns the Chimneys of the Houses stand on the Foreside towards the Street, especially of the older Houses.

Thursday June the 26th, We set out for *Launceston*, 20 Miles. There we saw the Castle, which is well delineated by *Speed*. This Day we found, near *Woodford-Bridge*, *Campanula Cymbalariae foliis*: Near *Launceston*, in a shady Lane, are two Species of *Muscus* q. *Osmund*
royal

royal grows in great Plenty by the Way Sides; and near *Houlsworthy*, (a mean Market-Town in *Devonshire*) in the Way to *Launceston*, we saw in the Hedges great Numbers of a kind of wild Cherry-Trees, with a long sharp-pointed Leaf.

Friday June the 27th, We passed on towards *Padstow*; but rode first to *Tintagel*, where we found *Cornish* Diamonds on the Rocks; but the fairest and largest are met with in the Quarries, where they dig Stone. Some there are, of the Bigness and Length of one's Finger, very clear and pellucid; all of them have six Sides, besides the Ends. At *Denbyboul*, about two Miles from *Tintagel*, is the best *Quarry* of *Slate* in the Country; it lies East and West, and deepens Westward. They slit it with Chissels into thin *Laminae*; When it
is

is first dug it flits easily, afterwards the Sun hardens it so, that it will not flit at all. It is divided into several Beds, both longways and broadways, by Cracks or Rifts, which they call *Junks*: The outside of the Slate, where the *Junks* go, is commonly of a Red Colour. At St. *Elyns* we passed one Mr. *Matthew's* House, riding on to *Padstow*, where is as pretty a Key as any I have seen. Mr. *Prideaux* has a Seat here. This Town is noted for strong Beer. Great Plenty of Slate is dug up about this Place, which they send into South *Wales*, and it is a good Trade: They bring from thence Pit-Coal. Near *Padstow* we saw great Flocks of *Cornish Choughs*. The *Gannets* they told us were almost of the Bigness of a Goose, White, the Tips only of their Wings Black; they have a strange Way of catching them, by tying a

Pilchard to a Board, and fastening it so, that the Bird may see it, who comes down with so great Swiftness for his Prey, that he breaks his Neck against the Board.

Saturday June the 28th, We travelled on to Truro, 16 Miles. By the Way we passed St. Columb (l),

(l) *Mr. Ray, in the Year 1667, took another Tour to the Land's-End, and from thence went to St. Columb. " By the Way (saith he) at a " Place called Baldieu, we saw a Tin-mine. " The Load or Vein, for the most Part, runs " East and West, and deepens North. The " Load is not a Vein, but a Floor or Bed. The " Load, both above and beneath, is covered " with a Cruft or stony Substance, which hath " no Tin in it, which they call Country, the " uppermost they call the North Country, the " nethermost South Country. In the Mine " sometimes they find Spar, which is nothing " but a Fluor; some white and hexangular in " Diamonds. St. Columb is one of the best Par- " sonages in Cornwall, the yearly Value between " 300 and 400 Pounds."*

an old Town. The Churches in Cornwall, for the most Part, have good Tower-Steeple of Free-Stone; the Churches are made up of three Rows or Ridges of Building, of an equal Height, and sometimes Length too, and covered with Slate. Near St. Columb, by the Way Side, are found in several Places, *Euphrasia pratensis lutea*, C. B. Between St. Columb and St. Michael (and in several other Places) a Plant, which we guess to be *Alfine palustris minor serpillifolia*. It hath long, weak, trailing Branches; the Stalk is round and Red, the Leaves of a pale Green, growing by Pairs, the Flowers grow *verticillatim* about the Stalk, at every Joint; each particular Flower is compounded of Five, as it were *tubuli*, in Figure like the Seed-Vessel of *Larks-Spur*; it grows in watery Places near Springs. Nothing more common

common than *Osmunda regalis* about Springs and Rivulets in this Country. *Camomile* grows in such Plenty along the Way Sides, that one may scent it as one rides. *Truro* is a pretty Town, the second in *Cornwall*, and is governed by a Mayor and four Aldermen, with their four Assistants; the Lord *Roberts* hath an House there, but it is a small one; the Church is handsome and large, and hath two Monuments in it, one of them of three Children of the *Michells*, the other of the present Lord *Roberts* his Grandfather. Here is an indifferent good Key. About the Key grows plentifully a kind of *Tblaspi*, which we are wont to call *Tblaspi minus fol. Nasturtij hortens q.* They dredge up from the Bottom of the Sea abundance of a Sort of *White Coral*, among the Sand wherewith they manure their Land, and an infinite
Number

Number of small *Turbines* or *Buc-*
cinæ. I suppose the Bottom of the
Sea is thereabout, where they take
up this Sand, all over covered with
this Coral. They find also on this
Coast the Shells of the *Echini marini*.

Monday June the 30th, We rode
over the Sands to *St. Ives*. There
we saw a Church almost quite cover-
ed with Sand, blown up by the
Wind; the Name is *Uny Lalant*.
Here is a pretty little Fortification
which they call the Castle. We saw
also here some of the young *Murres*,
a Bird Black on the Head and Back,
White under the Breast and Belly,
and hath a Black and sharp Bill,
Black Feet, whole-footed. We were
assured that the *Cornish Murre* is no-
thing else but the *Razor-Bill*. All
along the Cliffs, as we rode upon
the Sand toward *St. Ives*, grew *Fœni-*

T

culum

culum vulgare in great Plenty. *St. Ives* is a Borough-Town, governed by a Mayor and Aldermen. There are a great many Houses to the North of the Town, which (as well as the Church) are almost buried or overwhelmed with Sand, blown up there by the Wind in stormy Weather. On a Rock, a little above the Town, to the North, stands a little Chapel dedicated to *St. Iva*, as they say. The People of *Britanny* drive a great Trade here for *Raiæ*, which they dry in the Sun, and then carry away. In exchange for this, they bring Salt. The Inhabitants of this Town are of Opinion, that their Fish are better and more daintily tasted than those taken about *Pensance*, or any where on the other Side of the Country, because theirs lie and feed upon the Sand, and the others on Ouze or Mud. The Fish taken about *St. Ives*

Ives are *Salmon-peal*, *Ling*, *Codfish*, *Mullet*, *Bass*, *Hake*, (*sed rarius*), *Bream* and *Whiting*, *Plaife*, *Soles*, *Turbot* in Plenty, as also *Gurnards*, *Red* and *Grey*, *Mackrell*, but not many, *Herrings*, *Pilchards*, and for this Fish it is the best Place in *Corn-wall*; of these have been taken 1500 Barrels in a Day, some say 1800. Here are also taken *Lobsters*, *Crabs*, *Pollacks*, *Dogfish*, *Dranicks*, (as they call them) *Tomlins*, which are nothing but a young *Codfish*, *Shads* or *Schads*, *Dories*, *Sand Eels*, which they call *Launces*, &c. We passed over to *Godreve Island*, which is nothing but a Rock, about one League distant from *St. Ives*, to the North-East, near the Land, upon which, in Time of Year, build great Store of Birds, viz. *Gulls*, *Cormorants*, *Razor-Bills*, *Guillems*, and *Puffins*. The *Razor-Bills* are not so numerous on

this Island as the *Guillems*, or *Kid-daws*, of which many Scores of young ones lie dead here. Here they call the *Puffins*, *Popes*; and the *Guillems*, *Kid-daws*. We saw many of those Birds which they call *Gannets*, flying about on the Water. This Bird hath long Wings, and a long Neck, and flieth strongly. Possibly it may be the *Catarractes*. He preys upon *Pilchards*; the Shoals whereof, great Multitudes of these Fowl constantly pursue. Another Bird they told us of here, called *Wagell*, which pursues and strikes at the small *Gull* so long, till out of Fear it mutes, and what it voids, the *Wagell* follows, and greedily devours, catching it sometimes before it is fallen down to the Water. This several Seamen affirmed themselves to have oftentimes seen.

Tuesday

Tuesday July the 1st, We rode to the *Land's-End*. Near *St. Ives*, in the Way to *Pensance*, we found a kind of Plant, on a moist Bank, whose Leaf is somewhat like to *Saxifraga aurea*; it runs out in long Wires like to *Campanula cymbulariæ fol.* at each Leaf it bears one small purplish coloured Flower. We found another Plant on a boggy Ground, which had small grassy Leaves, but very few; it was almost all Stalk; it grew not above an Hand high, had a yellow Flower, but not open in any when we where there, it being a close Day; the Seed-Vessel was somewhat large, *pro ratione*, round, biggest in the Middle, smaller at both Ends, like some Rolls wherewith they roll Corn. At the *Land's-End* we saw nothing remarkable. Here they give Names to some of the Rocks; for Instance, one they call

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the *Long-Ship* (*m*), another the *armed Knight*, which they told us fell down about the Time the King was

(*m*) When Mr. Ray was the second Time at the *Land's-End*, he made the following Observations.—“ *August* the 17th, 1667. On the Rock “ called the *Long-Ship* they often, in calm Weather, find the *Phocæ*, which they call *Soiles*, “ sleeping, which sometimes they kill, by striking “ cross the Snout with a Pole, and at others “ they shoot them. Some of them (they say) “ grow to the Size of a Bullock of two Years “ old, and they are of divers Colours. We “ could not certainly learn whether they have 4 “ or only 2 Legs, and them before; one, that “ said he had often killed them, affirmed them “ to have only 2 Legs, and them before. We “ had also the Story how they defended themselves, by casting Stones backward upon “ those who came near them. Being shot dead, “ the Male (they say) falls or sinks presently to “ the Bottom, the Female floats or swims. They “ distinguish here between *Sieles* and *Soiles*. The “ *Siele* they affirm to be a much lesser Fish, and “ not to be taken on our Coasts. They distinguish also between *Dolphins* and *Porpusses*; “ and by their Discourse, I gather, that a *Dol-*
“ *phin*

was beheaded; and a third they call
the *Spanish Lady*, &c. *Cornish*
Diamonds

“ *phin* is a much lesser and scaly Fish, and con-
“ sequently what they call a *Dolphin*, is not the
“ *Delphinus Antiquorum*. *Porpusses* are here like-
“ wise taken in calm Weather. We visited
“ *Dickan Gwyn* (who lives in *St. Just's* Parish)
“ and had from him some *Cornish* Words. He
“ is esteemed the most skillful Man of any now
“ living in the *Cornish* Language. But being
“ no good Grammarian, we found him very de-
“ ficient. Another there is, *Pendarvis* by Name,
“ who is said to be a Scholar, who doubtless
“ must needs have better Skill in the Tongue.
“ Four Towns there are in *Cornwall* where they
“ coin Tin, or mark it with the King's Mark,
“ viz. *Lestwithiel*, *Helston*, *Truro*, and *Pensance*
“ Before it is thus coined, it cannot be trans-
“ ported into foreign Parts. Upon every Hun-
“ dred Pound Weight of Tin the King hath
“ four Shillings. In the Parish of *St. Just* are
“ more *Tin Mines* wrought, than in any other
“ Parish in *Cornwall*. One Hundred of good
“ fat Ore, yields almost so much Black Tin,
“ and an Hundred of Black Tin (when blown)
“ about Forty Pound of White Tin. A Thou-
“ sand Weight of Tin is sometimes worth Forty-

Diamonds are found hereabout, and indeed in all this Country. Mr.
Dickan

“ five Pounds Sterling; but since the War
 “ with the *Dutch* it is not worth above Thirty-
 “ five or Forty Pounds the Thousand at most.
 “ The Tinnners complain they lose by it. Be-
 “ fore the King's Return every Man had Li-
 “ berty to sell his Tin as well as he could, to his
 “ best Advantage; but since, there has been a
 “ Price set on it. There is made and uttered
 “ yearly in *Cornwall*, four Millions of Tin, more
 “ or less: This Information we had from Mr.
 “ *Borlase*, a young Gentleman living in *St. Just's*
 “ Parish, near the Sea.

“ *August* the 29th, At *Pensance* we saw a large
 “ Tunny, which was taken in the *Pilchard* Nets.
 “ They call them *Spanish* Mackrel. It was
 “ about 7 Feet long, and of a great Bigness:
 “ his Stomach was full of *Pilchards*. We also
 “ saw the *Haliaeetus* or bald *Buzzard*, of a dark
 “ Colour on the Back, and White under the
 “ Belly, having strong Legs and Talons, so
 “ placed, that she can bend two backward and
 “ two forward. The Wings, when explicated
 “ in Proportion to the Body, are of a great
 “ Length. This Bird was shot, having a *Mul-*
 “ *let* in her Talon. We likewise here saw the
 “ *Godwit*,

Dickan Gwyn lives not far off, in *St. Just's* Parish, who is the only Man we could hear of that can now write the *Cornish* Language. We met with none here but what could speak *English*; few of the Children could speak *Cornish*; so that Language is like, in a short Time, to be quite lost.

St. Buryen, near the *Land's-End*, is a Deanery, which formerly *Dr. Crichton* had, now *Dr. Weeks* has it,

“ *Godwit*, which they call a *Stone-Curlew*, the same,
“ I suppose, which is common upon our Coasts
“ in *Suffolk*. The Colour differs somewhat
“ from a Bird of the same kind I was shewn at
“ *Venice*, which was more cinereous or dun, and
“ had not that Variety of Colours in the Wings
“ and Tail.—At the *Lizard* Point, on the
“ Rocks, I observed *Herniaria glabra* in great
“ Plenty; also *Asparagus vulgaris*, and near the
“ Cliffs *Hyacinthus autumnalis minor* abundantly.
“ On *Goon Hilly Downs*, near the *Lizard* Point,
“ is a kind of Heath, which I have not elsewhere
“ seen in *England*.”

There

There is a Tower upon an Hill, not far from the *Land's-End*, which serves for a Sea-mark. At *Pensance* we saw and described several Sorts of Fish, to wit, *Mullus major*, *Trachurus*, *Pagrus*, *Erythrinus*, *Hake*, *Haddock*, *Whistling-Fish*, *Rawlin*, *Pollocks*, *Holibut*, *Conger*, and *Tubfish*, which is no other than a Red *Gurnard*. We there saw the Houses in which they lay (and the Manner in which they press) their Fish, especially *Pilchards*, they pile them up on a Bed of a great Length and Breadth, to wit, as long and broad as the House, made for that Purpose, will permit, and breast high; then, in the Wall behind, they have an Hole into which they thrust a Rafter or Post of Timber, (which reacheth cross the Bed of Fish) and on the other End of it hang one or two or more great Stones, of which they have many

many lying there, with a great Hook of Iron fastened in them for that Purpose; of these Holes and Rafters they have many all along the Bed, which press down the Boards, where-with I conceive the Bed of Fish is covered, and so press the Fish equally: Underneath the Bed they have a Gutter to receive and convey the Oil which comes from the Fish, into a Vessel made on purpose in the Ground at one End of the House. They have a pretty Key made with a Pier of Stones, both here and at *St. Ives*. On all the Coasts hereabouts are cast up Plenty of *Sea-Laces*, besides the *Sea-Girdle* and *Hangers*, *Sea-Belt*, &c. On the Beach near *Pensance* we saw growing many rare Plants; to wit, *Gnaphalium marinum* in Plenty, a kind of *Sea-Pease*, *Species Titbymali*, which runs close to the Ground, the Stalks of it Red and round,

round, the Leaf Green above, having only one middle Rib or Fibre visible, which is Red underneath; the Figure of it is oblong; but in those Leaves, among the Seed, it misses one Corner, as if a Snip were cut off from it. Near *Penryn*, along the Hedges *copiose*, we found a kind of *Linaria*, the same as I have in my Garden, by the Name of *Linaria Hungarica*. The Leaves grow not in this confusedly upon the Stalk, as in the common, but in Rundles; it grows sometimes to be a Yard high, the Stalks brittle, much branched toward the Top. The Flowers grow not so thick and clustering together as in the common, but at greater Distances, and are of a very pale Blue, almost White, streaked all along the Claw or Heel with long Blue *Striæ*; the lower Leaf hath a little

little Appearance of Yellow, but more within, if you open it.

Wednesday July the 2d, We went from *Pensance* to *Penryn*, through *Market-Jew* and *Helston*. We saw, at a Distance, *St. Michael's Mount*, a Rock in the Sea near the Shore, to which one may pass on Foot at low Water, there is on the Top of it an House, and Chapel with a Tower, where *Mr. St. Aubyn* lives; below is a pretty little Key to receive small Vessels. *Penryn* is one of the handsomest Towns in *Cornwall*, situate upon an Hill, excellently well watered, having Water running in wooden Pipes through the Streets, and at Intervals Cisterns to receive it; and it is so contrived, that what overflows the Cistern, runs into another wooden Pipe, and so interchangeably down the Hill; besides this, almost every House

House hath Spring-Water, a Garden, and an Orchard to itself. It is a Borough, and hath a Mayor and twelve Aldermen. The Mayor of *Penryn* uses to write himself *Mayor of Falmouth*.

Thursday July the 3d, We rode to a newly erected Town, which they have named *Falmouth*. The King hath lately made it a Corporation. The Country People round about call it *Penny come quick*, and tell this Story of it. Within less than Forty Years there was here no House at all, but a certain Person building a little one, a Servant of one Mr. *Pendarvis* came and dwelt in it; upon which that Gentleman bid his Servant brew a little Ale, and on such a Day he promised to come with some Gentlemen, and help her to some Money by drinking it up.

The Servant obeyed her Master's Orders; but in the mean Time a *Dutch* Vessel came into the Harbour, and the Crew calling at the House, drank out all the Ale. Mr. *Pendarvis* came with his Friends at the Day appointed, and calling for some Drink, his Servant told him she had none. Her Master expostulating with her, she told him what had passed, and said truly Master, the *Penny* came so quick, I could not deny them. Thence had the Town both its Original and Name. It is now become a great Place, and belongs all to Sir *Peter Killigrew*, who is now building a Church there. It consists chiefly of Ale-Houses, and depends upon the Haven; the *Dutch* used much to frequent it. From *Falmouth* we passed three Ferries, and rode to St. *Michael* upon *Kevill*, where we lodged one Night. We saw there

there Mr. *Boscawen's* new House, the best we had seen in *Cornwall*. In this Parish did live the ancient Family of the *Carmino's*, which is now extinct.

Friday July the 4th, We set out for *Bodmin*; by the Way we saw *Roche-Rock*, of a great Height, standing in the highest Part of a large Moor. Near the Church of *Roche*, on the Top of the Rock, was a Chapel, dedicated to *St. Mary*, now ruined. There is nothing very remarkable in *Bodmin*, only a very large and fair Church, with a Spire-Steeple, of which there are very few in *Cornwall*. The Water which supplies the Conduit (as *Carew* observes) runs through the Church-Yard. There are a great many Tanners in this Town. We did not see what *Carew* mentions of the Kitchens and
Out-

Out-Houses being up Stairs, neither is the Place held to be unhealthful, so far as we could learn.

Saturday July the 5th, We travelled on to *Saltash*, and passed *St. Neot's*, and so went to *the other half Stone* (so called) which hath an ancient Inscription upon it, but is so weather-beaten that it is not legible. Upon the Top of an high Rock, about two Miles North of *St. Clere*, are those Stones which they call the *Cheese-Wring* (*n*), of which *Speed* hath given a Figure. These seem to be naturally so piled one upon another, the least at the Bottom; they lie askew and not perpendicularly. A little below, and nearer *St. Clere*, are the Stones called the *Hurlers*, which are oblong rude Stones, pitched

(*n*) See Mr. *Borlase's* Antiquities of *Cornwall*.

in the Ground on one End, standing in three Circles, the middlemost the greatest; their Centers seem to be in one right Line: About half a Mile from these, on the Downs, stands a Stone called the *long Stone*, more than two Yards and an Half high, having a Cross on both Sides of it.

We had an Account of the *Hurling-Play* much used in *Cornwall*. There are two kinds of *Hurling*, the *In-burling* and the *Out-burling*. In the first there are chosen 20 or 25 of a Side, and two Goals are set up; then comes one with a small hard Leather Ball in his Hand, and tosses it up in the midst between both Parties; he that catches it endeavours to run with it to the furthestmost Goal; if he be stopped by one of the opposite Side, he either saith I will stand, and wrestles with him, letting

letting fall the Ball by him, (which one of the opposite Side must not take up, but one of his own) or else throws away the Ball to one of his own Side, (if any of them can catch it). He that is stopped may chuse whether he will wrestle, or throw away the Ball; but it is more generous to wrestle. He that stops must answer, and wrestle it out. When any one wrestles, one of his Side takes up the Ball, and runs with it towards the Goal, till he be stopped, and then, as before, he either wrestles or throws away the Ball, so that there are commonly many Pairs wrestling at once.---An *Out-burling* is played by one Parish against another, or eastern Men against western, or *Devonshire* Men against *Cornish*; the manner they enter upon it is as follows. Any one that can get Leave of a Justice, &c. goes into a Market-

U 2

ket-

ket-Town, with a little wooden Ball in his Hand, plated over with Silver, and there proclaims the *Hurling*, and mentions the Time and Place. They play in the same manner as in the other, only they make the Churches their Goals, that Party which can cast the Ball into, or upon a Church, wins. In an *Out-hurling* they have not a set Number on each Side, but each have as many as they can procure. An *Hurler*, to help him in running, may catch hold on an Horseman's Stirrup. No Horsemen play. *Saltsb* is governed by a Mayor and Aldermen. On a woody Bank (by a Comb) to the South of *Saltsb*, we first found *Lamium melissæ folio* growing in great Plenty. We observed no Parks in *Cornwall*; their Fences are for the most Part earthen or Stone Walls; often, instead of a Stile, you have only a Gap in the
the

the Wall; and a Grate to pass over, after the Manner of College Grates, only ruder, and of Wood or Stone.

Monday July the 7th, We went on to *Plymouth*, but by the Way diverted to *Stanehouse*, a little Town, not far from the Passage out of *Cornwall*. Thence we had a view of *Mount Edgcumbe*, a brave House, and well situate, belonging to Mr. *Edgcumbe*, a Gentleman of great Estate. On the Hill which you ascend, after you are come over the Passage to go to *Plymouth*, grows *Eryngium vulgare* in great Plenty, which I do not remember to have seen any where else in *England*. There grows also *Erythrodanum*; as upon almost all the Rocks on the Sea-Coast hereabout. Here we had a View of the little Island in the Mouth of the River, called *Portsea*
U 3
Island,

Island, (as I remember) in which is a good Fort. There are besides 3 other Castles near the Entrance of the Haven or Key of *Plymouth*, on the West Side of the Town. *Plymouth* is a great and rich Town, inferior in Trade, Riches, and Bigness, to none in the West, except *Bristol*; yet there are no fair and uniform Streets in it: Here are two Churches, one half built. This Town makes a very fair Shew at a Distance, as you go to *Ouston*, a good large Town on the Harbour, a Mile to the East. From *Plymouth* we travelled on through *Modberry*, a little Market-Town, and so on to *Morley*. Near *Modberry* we passed a fair House belonging to Sir *Thomas Hales*.

Tuesday July the 8th, We pursued our Journey to *Totness*, through *Dartmouth*,

Dartmouth, a large and well built Town, and hath a commodious Harbour; at the Mouth of it two Castles, one called *Kingsward* Castle, from a little Town on the other Side of the Water called *Kingsward*, the other *St. Patrick's* Castle; there is besides another in the Town. This Town hath the River on one Side, and on the rest it is compassed with steep, high Hills. Many Fish are taken in these Parts. *Pilchards* we saw. *Totness* is a large, clean Town, standing on the Side of an Hill; there is an old Castle at the upper End of it, upon an artificial Mount; and there are some Rows of Houses at the Market-Place, like those at *Chester*, with fair Shambles. The Town is governed by a Mayor and fourteen Aldermen, and is a Borough. We went to Mr. *Champernon's* Wood to look for the *Melissa Moldavica*,

but instead of it, found *Melissa Fuchsi* in Plenty, which we suppose was mistaken for it. *Rubia major* grows also there. In *Devonshire* are abundance of deep, narrow, shady Lanes; the Country a very uneven one.

Wednesday July the 9th, We passed on to *Exeter*. We viewed the Town; it has one fair Street; the Houses well built; the Cathedral is small but neat; it hath two Steeples, one at each End of the cross Building, in the one ten Bells, in the other one large one; the Lady's Chapel is converted into a Library, and therein, at the upper End, a Monument of Sir *Peter Carey* and his Lady; there are other little Chapels, and in them several ancient Monuments, to wit, Sir *Gaven Carew's* and his Lady's, and Sir *Peter Carew's* (Sir *Gaven* and his Lady were poisoned);

poisoned); Bishop *Stafford's*, who was once Chancellor of *England*; Mrs. *Elizabeth Barret's*, an Herse cut in Marble; Bishop *Cotton's*; Sir *John Gilburne's* and his Lady's; Bishop *Carey's*; Bishop *Branscombe's*; Bishop *Oldham's*, in the Wall (he was excommunicated); Bishop *Stapleton's*, and one of his Brother, a Knight; Sir *Thomas Speake's*; one of another Sir *Peter Carew*, who died at *Ross* in *Ireland*; Mr. *Harbin's*; Dean *Lacy's*, his Effigies as naked, carved in Stone, (he was found dead in his Study); Bishop *Masbam's*; and one of *Courteney* Earl of *Devonshire*; another of *Bobun* Earl of *Hereford*; Bishop *Lacy's*, who built the Chapter-House; and in the Wall of one of the Wings, a Monument of *Leofricus*, the first Bishop of *Exeter*. The Cloister is pulled down, and there are now little Houses, which
the

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Dean and Chapter have given to poor ancient People to inhabit. The Chapter-House is different from all that we have seen, an Oblong, like a Chapel, handsomely gilded on the Top. A good Area about the Church.

Thursday July the 10th, From Exeter we travelled through Honiton to Morley, 21 Miles. We saw nothing remarkable in this Day's Journey.

Friday July the 11th, We went on through Chard, 6 Miles; to Crokeborn, 7 Miles; thence to Evil, 8 Miles; and to Sherborne, 4 Miles. Here the Lord Digby hath an House. The Town is no inconsiderable one, the Church large, arched, and well carved on the Top. It was once an Abbey-Church. Near the Church
is

a Free-School, founded by King Edward VI. and well endowed, the Stipend is Sixty Pounds *per Annum*. The Castle is now ruined, but never was very great or strong.

Saturday July the 12th, We set out from *Sherborne* to *Salisbury*, 34 Miles, and passed through *Shaftsbury*, and by the Earl of *Pembroke's* Seat at *Wilton* (about two Miles from *Sarum*), where is a Park encompassed with a Stone-Wall. *Salisbury* hath in it four Parish Churches, besides the Cathedral: It hath Water running through all the principal Streets, which are strait and broad; it hath a fair and large Market-Place, and is governed by a Mayor and twenty-four Aldermen. The Buildings are but low. The Height of the Cathedral Steeple was lately found to be 135 Yards, whereas before it was supposed

supposed to be 148, that is, equal to the Length of the Church; an octagonal Stone upon the Top of the Spire 12 Feet round. There are many Monuments in this Church, to wit, Bishop *Poore's*, who first began the Building of the Church, and continued it eleven Years; Bishop *Bingham's*, the second Founder's, who carried it on twenty Years; Bishop *York's* the last, who finished it in eleven Years more. A Brass Plate in the Wall for Dean *Gourdon*, a Scot; Bishop *Audley's* Tomb; Bishop *Salcot's*; Bishop *Bridport's*; Dr. *Bennet's*, who is reported, in Imitation of our Saviour, to have endeavoured to have fasted forty Days, but expired at seventeen Days End. Dr. *Sidenham's*. A fair well-wrought Free-Stone Monument for Sir *Thomas Gorges* and his Lady; this Monument is adorned with Figures of the

regular

regular Solids. A Tomb for the Lord *Hungerford*, who was hanged and degraded, and had a Toad put into his Coat of Arms; an Iron twisted Wire hangs up near his Tomb, signifying an Halter. The like for the Lord *Stourton*, whose Tomb is also here on the other Side of the Chapel of our Lady. A Monument of that Family with six Holes on one Side, and six on the other, alluding (as his Coat of Arms) to six Wells, three within his Park, and three without. The Lord *Cheyney's* Tomb; Bishop *Beauchamp's*; Sir *William Longspear's*, *Rosamond's* Son by King *Henry II.* A stately rich Monument of the little Earl of *Hertford*; Dr. *Wilton's*, with a Rebus on it, *Will* and *Tun*; Bishop *Capon's*; a Monument for Sir *Richard Mompeyson* and his Lady, which is a gaudy one. Bishop *Jewell*, content with a Grave-Stone.

Stone. The Cloister is wide, and a Furlong about. The Chapter-House is a large one, supported with a Pillar in the Middle, and hath Fifty-two Stalls in it for the Fifty-two Prebendaries of this Church. About a Mile from *Salisbury*, in the Way to *Amesbury*, stood old *Sarum*; there are still remaining great Trenches which encompassed the Castle. They report that ancient *Roman* Coins and Urns have been dug up here.

Monday July the 14th, We set forward to *Amesbury*, from whence I again visited *Stone-henge*, about a Mile and an Half West of the Town. It consists of four Rows of Stones, the outmost high Stones standing in a Circle, and having Stones lying upon them from Stone to Stone; each upright Stone hath two Tenons, which fill the Mortices of the incumbent

cumbent Stones, and so they all together formed a Circle. The Stones within these are of a smaller Size, and the inner ones are set in an Hexagonal Form, and are very large, two standing upright and pretty near together, having Tenons, and one Stone laid upon them with two Mortices; together they represent the Greek Letter Π . Six there are of these, standing like the *Latera* of an Hexagon, with a good void Space between for the Angles. We counted these Stones, and found the Number of all (small and great Pieces and all) 94. At *Amesbury*, in the Wall of the Abbey, we saw an old Grave-Stone, supposed of Queen *Guenever*, King *Arthur*'s Wife; these Remains are just behind the Marquis of *Hertford*'s House, in a little Park. We here saw the *Loches*, which they take and drink down quick in a Glass of Wine.

Wine. We also saw divers Sorts of Tobacco Pipes, for which this Town is famous. From hence we pursued our Journey to *Stockbridge*, where we lodged.

Tuesday July the 15th, We rode to *Winchester*, an old City. In it were fourteen Churches, some of them are now fallen down, and the Castle is in a ruinous Condition. Here is one indifferent fair Street. The Town is governed by a Mayor and Aldermen. The *Shire-Hall*, within the Castle, built like an old Chapel, with a Body supported by Stone Pillars, and in it are two Isles. Over the Court of *Nisi prius*, above the Judge's Seat is fixed, against the Wall, King *Arthur's* Round-Table, with the Names of the *Knights* upon it. The Cathedral is a large Building, very plain without, a square low Tower

Tower rising out of the Middle of the Choir. The Pillars in the Church are strong and large, the Top of the Body and of the side Isles an Arch of Stone. A great Ascent out of the Body of the Church into the Choir, and two Ascents more to the Altar. The cross Isles are about the Middle of the Choir. In this Church are many Monuments, to wit, *William Rufus*, his Tomb-Stone, in the midst of the Choir; his Bones are in a Chest of Wood, which stands on the Top of the *Septum*, which parts the Choir and the side Isles. Five Chests more are set up in the same Manner, one (as it is said) of a Queen *Ina*, having no Inscription, the other Four have Inscriptions, in ancient Characters.

I.

Egbertus Rex obiit Anno Domini 835.

*Hic Rex Egbertus pausat cum Rege Kenulpho,
Nobis egregia munera uterque tulit.*

X

II.

II.

Adalphus Rex obiit 859.

Ringilthi in cista hac simul ossa jacent & Adulphi.
Ipsus fundator, hic benefactor erat.

III.

Edredus Rex obiit 955.

Hoc pius in tumulo Rex Edredus requiescit,
Qui has Britonum terras rexerat egregie.

IV.

Edmund Rex obiit A. D. —

Quem theca hac retinet Edmundum suscipe, Christe,
Qui vivente patre regia septra tulit.

In this Church are the following Monuments. A Tomb-Stone on which is this Inscription, *Intus est cor Nicolai, olim Wintonien. Episcopi. Cujus corpus est apud Waverly.* This Place is guessed to be now a Corn-Field, about a Mile from *Winton*. A Monument with this Inscription, *Intus est corpus Richardi Willhelmi conquestoris filij & Beornie ducis.* Bishop Fox's Monument, with his Effigies as a Skeleton on it: He altered

ed the Roof of the Choir, and was a great Benefactor to the Church; he lies buried under his Chapel (which they call his Study) a little Room behind the Altar. Over the Altar this Inscription, *O sacrum Convivium, in quo Christus sumitur!* The Roof of the Choir, over the Altar, is beautified with the History of the Passion represented in carved Work. In the Space behind the Choir are two stately Monuments, one for Bishop *Beaufort*, who founded the Hospital of *St. Cross*; another for Bishop *Wainflete*. Bishop *Langton's* Chapel of curiously carved Wood-work, and therein his Tomb. King *Lucius* his Tomb-Stone (as is supposed here); Lord *Weston's* Tomb, his Statue in Brass on it; Dean *Mason's*, who was also a Knight. At the East End of this Church is our Lady's Chapel (as it is there called), in which they have

X 2

their

their Morning Six o'Clock Prayers. King *Philip* and Queen *Mary* were married here; where Queen *Mary's* Chair is still preserved. This Chapel was built by two Priors, *Silksteed* and *Hunton*; there are half Rebus's for their Names carved on the Roof. Upon the Wall behind the Altar stood several Statues of *Saxon* Kings and Bishops, who had been buried in that Part of the Church, with these Inscriptions under them. Kenedelfus *Rex*, S. Bitinus *Epc.* Egbertus *Rex*, Adulphus *Rex*, Eluredus *Rex*, *filius ejus*, Edwardus *Rex sen.* Kinewaldus *Rex*, Ethelstanus *Rex*, *filius ejus*, SCA Maria, Dominus *Jesus*, Edredus *Rex*, Edgarus *Rex*, Emma *Regina*, Alwidus *Epc.* Ethelredus *Rex*, SCS Edwardus *Rex*, *filius ejus*, Cnutus *Rex*, Hardecnutus *Rex*, *filius ejus*. Under the forementioned *Saxon* Kings this Distich.

Corpora

*Corpora Sanctorum sunt hic in pace sepulta,
Ex meritis quorum fulgent Miracula multa.*

King *Hardeknute's* Tomb, whereon
is this Distich ;

*Qui jacet hic regni Sceptra tulit Hardecanutus,
Emmæ ac Cnutonis natus & ipse fuit.*

On another Tomb-Stone these Verses ;

*Corpus Ethelmari cujus nunc Cor tenet istud
Saxum, Parisiis morte datur tumulo.*

His Heart was said to be found in an
Ewer. A Monument of *Stephen
Gardiner's*, his Effigies like a Skele-
ton.

Bishop *Wickham* (who founded the
College here, and New-College in
Oxford, both dedicated to St. *Mary*)
is buried in a little Chapel in the
Body of the Church. There were
Verses about his Tomb, which are

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now almost quite defaced (o), there remains only as follows;

*Fugiter oretis tumulum quicumque videtis
Pro tantis meritis, &c. ———*

Bishop *Edington's* Monument. On either Side of the Entrance into the Choir, are the Statues in Brass of King *James I.* and King *Charles I.* On a Tomb-Stone in the Choir is this Inscription;

*Præsulis egregij pausant hic membra Richardi
Fociuns, cui summi gaudia sunt poli.*

Here is also the Monument of *William de Basing* Prior of this Church.

The Cloister is intirely pulled down.
The following Verses are over a Door

(o) This Tomb must have been repaired since Mr. Ray's Time, as the learned Dr. *Lowth,* in his very ingenious Life of *William of Wickham,* has given this Epitaph complete.

by

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by the Church Side, near another Door into the Church.

Cessit communi proprium jam pergite quæ fas.



The College is a pretty Stone Building, it hath a small well-adorned Chapel, with a Steeple, a Cloister, and a Library.

Wednesday July the 16th, We proceeded on through Alresford, near which Place we saw a large standing Pool of Water, frequented by divers Sorts of Fowl, as Coots, Ducks, &c. It belongs to Sir Thomas Tichborne. We lay at Alton.

Thursday July the 17th, We rode through Farnham, where we saw the Bishop of Winchester's stately
X 4 Palace,

Palace, called *Farnham* Castle: We ended this Day's Journey at *Windsor*, a Borough Town, indifferently fair and large.

Friday July the 18th, We saw the Castle, a large and stately Structure, fit to be a King's Palace; there are several Courts in it. In the first the Poor *Knights*, 24 in Number, have their Lodgings. At the West End of the Castle is a Tower, wherein are 8 Bells. *St. George's* Chapel is a fair Building, having a Body and two side Isles; it wants of the Height of *King's* College Chapel in *Cambridge*, but the Body alone is near as wide, arched on the Roof with Stone, as also are the side Isles, and the two Wings or cross Building; the Arch is very flat, and curiously adorned with carved Work, in both which respects it is not inferior to *King's* College Chapel,

Chapel, and in the latter beyond it. In the Middle of the Roof of this Chapel is the Arms of King *Edward* III. furrounded with the Arms of the *Knights*, who were first created of the Order. The Seats in the Choir are canopied over with good carved Work of Wood. The Dean's Seat is covered with a Canopy of Velvet, and Velvet Curtains. Here the *King* sits when he comes to St. *George's* Chapel. Every other Seat is reserved for the *Knights Companions* of the Order. In the Backs of some of these Seats are several Brass Plates with Inscriptions on them, and some only have the Coats of such as have been of the Order, with the Time of their Installation. Over their Seats are the *Banners* of the present Knights of the Order. In the Body of the Choir were buried King *Henry* VIII. and King *Charles* I.

In

In this Chapel are the following Tombs, to wit, one of the Earl of *Rutland*, and his Countess; another of Sir *Thomas St. Lieger*, and his Lady, Daughter of King *Edward IV.* and Dutches of *Exeter*. A Tomb of the first Earl of *Worcester*, and his Lady; she lies on his Right Hand, because Daughter to a King and Queen, he being only Son of a King. The Tomb of *Henry Wood*, Doctor of Law, that of *J. Dent*, Esq; of *Thornbury* in *Gloucestershire*, *William Fitz Williams's* Tomb, Sir *Richard Wortley's*, Dr. *Thompson's*; he was Bishop of *Gloucester*, and Dean of this Chapel; by his Tomb is his Effigies, a Skeleton well cut in Stone. A Monument, whereon formerly lay a Bible, on which these Words were inscribed, *Who laid this here? The Reverend Father in God Richard Beauchamp, Bishop of Salisbury,*

lisbury, &c. *vide*. The rest intimates, that he who should read in that Book, and look stedfastly on a Stone Cross carved in the Roof, should have forty Years Pardon. King *Henry VI.* is buried here without any other Monument than his Coat of Arms on the Roof, and a Chain hanging on the Necks of the two Supporters, which are Antelopes. A fair Monument of the good Earl of *Lincoln*, and his Countess. One *Oliver King* buried in his own little Chapel; he was Secretary to four Kings, *viz.* *Edward IV.* and *V. Richard III.* and *Henry VII.* It is so written under these Kings Pictures on the Wall. *Charles Brandon*, his Atchievement hanging up. Here also lies a Lord *Bray*, who built a great Part of this Chapel: He caused a *Brake*, wherewith Hemp is dressed, to be wrought in the Stone Work, and

and on the Locks and Keys, &c, *Edward IV.* is buried here under an huge Grave-Stone, and over it a Pair of Gates of well carved Steel of great Value.

The *Poor Knights* wear a loose Red Gown over a Purple Gown at Divine Service, how at other times they are habited, I saw not: on their left Shoulder is *St. George's Cross*. The two Silver Candlesticks and Basin on the Altar, were given by the late Princess of *Orange*. Behind *St. George's Chapel* is another Chapel unfinished, where Cardinal *Wolsey* intended to have had his own Monument. Out of the second Court is a Passage over a Draw-Bridge, and through a great Gate-way, into that which they call properly the *Castle*, which is the *King's Palace*. Here stands the Main-Guard. Within the
 4 second

second Court is a Tower (called the round Tower) standing upon a round and high Hill, with a wide and deep Ditch about it, where the Magazine is kept. The third Court is a very fair and spacious Place, encompassed with very good Buildings, on one Side St. George's Hall, where the King dines with the Knights; also the King's private Chapel. There are many fair Rooms in the Palace. The Roofs of the Guard-Chamber, and the Presence-Chamber, are adorned with *Speculums*, fixed in the Corners of the Fret-work. Along the North Side of the Castle is a very stately Terras-Walk, from whence is a View of the *Thames*.

In the Hall is St. George's Chair, on the Back whereof is carved St. George killing the Dragon, and the Virgin standing by. In the lower-
most

most Room of a Tower near St. George's Hall; two Kings were kept Prisoners at once, viz. John King of France, and David King of Scotland.

From *Windsor* we passed a wooden Bridge over the *Thames* to *Eton*. These two together make up a fair and large Town. We saw the College, which is somewhat inferior to *Winchester* College. The Chapel is large, and somewhat resembles *King's College* Chapel in *Cambridge*. The outer Chapel is used as the Parish Church of *Eton*. None sit in the Choir but such as are of the Foundation. Here is a little Chapel of one *Lupton*, with a Rebus carved on it, to wit, *Lup* and a *Tun*. The Monument of Mr. *Rous*, (late Provost) which was here erected, was first defaced and afterwards taken down.

Murray,

Murray, Tutor to King *Charles I.* lies buried, and hath a Monument, here. Sir *Henry Savill* buried here under a Marble Tomb; also Sir *Henry Wootton* under a Marble, on which are his Coat of Arms, and this Inscription;

*Hic jacet hujus Sententiæ primus autor,
Disputandi pruritus fit Ecclesiarum scabies.
Nomen aliàs quære.*

The College of *Eton* is built of Brick, hath a pretty little square Court cloistered round about.





(^a) Mr. Ray to Mr. Derham.

S I R,

I Received yours of *April* the 24th last past, for which I return you Thanks, and First, for your Approbation of such Books as I have published, though I dare not own any such Worth in them, as to deserve so good an Opinion as you or others may have conceived of them. However, the more unmerited such Commendation is, the more Thanks I owe You and Them for it.

2. For that particular and exact Account you have given me of the

(^a) The Original is thus endorsed by Dr. Derham; "Received this *May* the 8th, 1702."

Appearance

Appearance of an innumerable Multitude of small Frogs, covering the Highway, &c. I doubt not but had others, to whom the like Phænomenon hath occurred, been as inquisitive and observant as yourself, they might have found out whence they came forth. Had I received this History before the last Edition of my Book of the Wisdom of God, &c. I could have made good Use of it.

Your Observations of the whole Process of the Generation of Gnats, from the Egg to their mature State, I should be glad to see. I have seen that Water Animalcule, out of which they immediately proceed, but never saw their Eggs, or where they lay them. It is not many Years since I applied myself to the Observation and Search of Insects, in order to compose an History of them; but

Y

now

now I am wholly taken off from that Study, by the afflictive Pains I almost constantly labour under, by reason of Ulcers upon my Legs, I having not been Half a Mile out of my House these four Years; and though I have made Use of many Means, and have had the Advice of some of the most skilful Surgeons and Physicians, yet without Success, growing yearly worse and worse. Besides, I have been very much haunted with a troublesome Diarrhæa, frequently recurring; so that you may well think I can have but little Heart to mind natural History: But yet I am so far engaged, that I cannot shake it off. I have now just ready to go under the Press a third Volume of the History of Plants, being a Supplement to the two former Volumes, which hath engrossed almost my whole Time, for two whole Years. Besides,
I have

I have a little Book now printing at *Leyden* in *Holland*, intituled *Methodus Plantarum emendata & aucta*.

An Account of your Observations about other aquatic Insects would be very acceptable.

As for Books about Insects, written in, or translated into *Latin*, I know none but *Aldrovand*, *Mouffet*, *Johnson*, and *Goedartius*, except *Malpighius de Bombyce*, and *Dr. Lister de Araneis*. The best general History, or Account of Insects, is that of *Swammerdam*, written in *Low-Dutch*, and translated into *French*.

The small Worm you mention and describe, I have often met with among the Viscera and Intestines of Animals, and elsewhere; but never

attempted the Discovery of its Manner of Generation, and do guess it would be a very hard Task to find it out.

Your Discovery of the long-beating Death-Watch I read the Account of in the *Philosophical Transactions*, soon after the Publication of it, with great Satisfaction; its Noise is more agreeable to the leisurely and constant Tick of the Death-Watch commonly observed, than that of Mr. *Allen's*. It is time that I put a Period to this Letter, the Remainder being only, that I am,

S I R,

Your's, in all Offices

of Love and Service,

JOHN RAY.

Mr.

Mr. Ray to Mr. Derham.

SIR,

I Received yours of the 19th, for which I thank you, and acknowledge myself much obliged to you, for being at the Expence of so much Time and Pains to gratify me. What you have been pleased to communicate, concerning the sudden Appearance of a vast Multitude of small Frogs, and the Account you give of the Place where they were generated, and whence they did proceed, I have written out and sent to *London*, to be inserted in this last Edition of my Treatise concerning the Wisdom of GOD, &c. as also what you have imparted concerning the Use of those extremely small Water Insects or Animalcules.

As for the History of Insects, I intend not a general one, but only of such as are native of *England*, adding such Exoticks as are found in the Museums or Cabinets of the Curious about *London*, or elsewhere. Neither yet can I hope, that all that I myself have observed, or shall obtain from Friends, will amount to the fifth Part of the Species that are native of this Island. I have, for some Years together, been a diligent Searcher out of Papilios diurnal and nocturnal, and though I have found and described near 300 *Species*, great and small, of that Tribe or Genus, within the small Compass of 4 or 5 Miles; yet came I not to the End of them, so long as I prosecuted that Enquiry, but every Year afforded me new ones. Now the Genus of Beetles is as numerous as that of the Papilios, if not more. The Flies (so at present

sent I call all Insects that have naked and smooth, not farinaceous Wings), both Bipennes and Quadripennes, are in a manner infinite, nor hath their History been with Diligence prosecuted by any Man that I know of, except Mr. *Willughby*, whose Manuscript I hope to procure.

I cannot but admire 'your Industry and Patience, in searching out and observing the various Species of Gnats, with the Manner and Process of their Generation, and the Success you have had in discovering them; which may encourage you to proceed in such Enquiries, to which you are so well qualified, and, if I may so say, gifted. For I look upon such a Sagacity in searching out, and Happiness in finding, new Things, as a Gift of God. Were there but a sufficient Number of such Men, who would apply

Y 4 them-

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themselves to the Prosecution of the History of Insects, much might be done in it, and many rare Discoveries made. I cease to give you further Trouble, and rest,

S I R,

Your's, in all Offices

of Love and Service,

Black-Notley, March
31, 1703.

JOHN RAY.

Mr. Ray to Mr. Derham.

S I R,

IT is now high Time that I give you Thanks for the kind Visit you made me here, and those rare Insects you were pleased to communicate.

I am

I am now entering upon an History of Insects, for which you would have been a far fitter Person, having, what I want, your Senses intire, your Strength firm, your Understanding and Memory perfect. The main Reason which induces me to undertake it, is, because I have Mr. *Willughby's* History and Papers in my Hands, who had spent a great deal of Time, and bestowed much Pains, upon this Subject, when there were few that minded, or were diligent and curious in it, though now there be many, and it is Pity his Pains should be lost.

I know not whether I told you, that I designed, in every Tribe, first to put our *English* Species by themselves, and then the Exotick by themselves. I desire you to afford me your Help in carrying on this History, and enrich it with some of
your

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your Observations, especially about Flies, wherein we are most deficient.

I hear you have published, in the *Philosophical Transactions*, a full Account, or History, of your new Death-Watch, but have not yet seen it.

I am, S I R,

Your's, in all Offices

of Love and Service,

Black-Notley, August
16, 1704.

JOHN RAY.

CUM:

CUM (a) educationis *vestræ* cura a piæ memoriæ parente (amicorum optimo) mihi delegata sit, præcipuaque penſi mei pars in moribus *veſtris* ad normam a patre præſcriptam formandis verſetur, officii mei eſſe duxi, quæ mihi in mundatis dedit, *vobis* exponere; eaque, ut pro virili obſervare & implere annitamini, obteſtari: --- Ut virtutis, libertatis, & moderationis, quamprimum per ætatem licet, principia, *vobis* inſtillem; literarum amorem & vehemens deſiderium; laboris patientiam; otii, gulæ, libidinis, & omnigeni luxûs odium, deteſtationem, fugam *vobis* ſuadeam & ingenerem.

(a) The Reader will obſerve, that the two firſt Paragraphs of theſe Inſtructions, are addreſſed to both the learned Author's Pupils.

Hæc

Hæc cum per absentiam non licet auribus *vestris* vivâ voce insonare, *faltèm*, quod possum, literis config-nata *vobis* ob oculos ponere, & ut rerum perpetuo memores esse *velitis*, orare non desistam.

Cum autem te ad libertatem pro-vocem, cavendum est, ne vocem eam aliter interpreteris, quam oportet; & in finistrum sensum detorqueas:--- Liber ergo est, qui divinis mandatis obtemperat, qui rationem ducem se-quitur, qui pravorum affectuum jugum excussit, qui nec gulæ, nec libidini inservit, qui iræ, odio, & ambitioni dominatur; non qui, ut vult, vivit, nisi id velit, quod debeat, quodque rationi consentaneum sit; liber, qui

“ Nullius addictus in verba jurare magistri,”
 aliena placita pro oraculis non habet,
 sed eorum dictata ad Lydium rationis
 lapidem

lapidem exigit. (de iis intellige, qui per ætatem & usum judicio valent, qui ingenio pollent) : liber denique, qui nec alienæ voluntati in tantum se emancipavit, ut ejus jussa sine delectu omnia, justane an injusta fuerint parum sollicitus, exequi paratus sit, legitimo tamen imperio in omnibus licitis, honestisque rebus promptè & libentè obsequitur.

Si hæc omnia observaveris, prout te observâsse spero, & confido; quæ dixi, non parænesis sed encomium sunt; nec reprehensionis sed laudis materiam continent, teque sereno & tranquillo animo esse jubent, & rectè factorum conscientia lætari.--Siquidem

“ Qui monet, ut facias, quod jam facis, &c.”

Tantum ut, quo cæpisti pede, pergas; & ut indies magis, magisque perficias, consulendus es.

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Imprimis autem te vehementer exhortor, ut a malorum consortio abhorreas, nec iis unquam familiarius utaris: memineris illius Apostoli

“ Φθειρῶσιν ἢ θη χρηστὰ ομιλῆσαι κακαί.”

Verum, si qui pii sunt, & probi, modesti, ingeniosi, docti, illos tibi socios ascifcas, cum iis amicitiam colas, & libentissimè verferis, a quibus ipse aut doctior semper, aut melior possis discedere.

Fastum omnem & superbiam ex animo ejicias: reputes tecum, quam stultum sit hoc vitium, quam rationi contrarium, quam *Deo* & hominibus odiosum.

Summopere exorandus es, ut pietatem exerceas erga parentes, aliosque sanguine conjunctos, quibus ætatis, dignitatis, aut gradûs respectu observan-

observantiam & reverentiam debes, ut eos debitis officiis colas eorumque monitis, consiliis, imo & reprehensionibus justis auscultes & obtemperes.

Tandem ut grato animo esse velis erga omnes, qui de te bene meruerint: ---decorum, honestum, justum est, ut eos, qui te amore & benevolentia prosequuntur, qui fideli consilio, aut precibus apud *Deum* juverunt, qui beneficiis cumulârunt, ut eos, inquam, vicissim diligas, & affectu mutuo complectaris; ut paria facere contendas; imo ut cum favore beneficium reponas, & agros fertiles imiteris, qui multo plus reddunt, quam acceperunt.

Hæc sunt, quæ tibi consulere officii mei esse duxi, ut ingrati, imo injusti notam effugiam; “ ut qui beneficium acciperem, officium autem
“ non

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“non præstarem ullam :”---quæ, ut eodem, quo a me animo profecta sunt, accipias; eademque non ut monita mea, sed ut mandata paterna, imo divina respicias, & observes, rogo; meque habeas pro humilissimo & fidissimo tuo cliente & servo,



J. R.



W. Hilliard

Balbon. Sculp.

